

MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

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Tractor and Operator in Navarro County, Texas

Photo by courtesy of Farm Security Administration

In this issue . . . Wages, Hours, and Productivity, 1909-39 •
Hours-of-Labor Laws • Two Years of Fair
Labor Standards • Union Agreements in
Shipbuilding • Accidents in Lumber Manufacture

SEPTEMBER 1940

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MONTHLY LABOR REVIEW

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

***** + HUGH S. HANNA, EDITOR + *****

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MONTHLY LABOR REVIEW

FOR SEPTEMBER 1940

WAGES, HOURS, AND PRODUCTIVITY OF INDUSTRIAL LABOR, 1909 TO 1939

By WITT BOWDEN, *U. S. Bureau of Labor Statistics*

THE decade of the thirties was marked by unusual changes in rates of wages and hours of work and by the rapid extension of collective bargaining. Far-reaching public policies relating to wages and hours were adopted. Adjustments to these changes and the satisfactory working out of the new policies called for available information about earlier experiences. In consequence, the Bureau of Labor Statistics undertook an extensive study and new analysis of earlier wage and hour data. These surveys made possible the computing of several new and complete series extending back as far as 1909 and the linking of these to the Bureau of Labor Statistics series already available for 1932 and later years.

The study was concerned primarily with wages,¹ but the use of data bearing on this subject led to the construction of statistical series on such related subjects as labor productivity and purchasing power, weekly hours, weekly earnings, employment, pay rolls or total wages, and wage earners' share of income paid out. For wages, hours, and employment, actual levels are shown as well as trends.

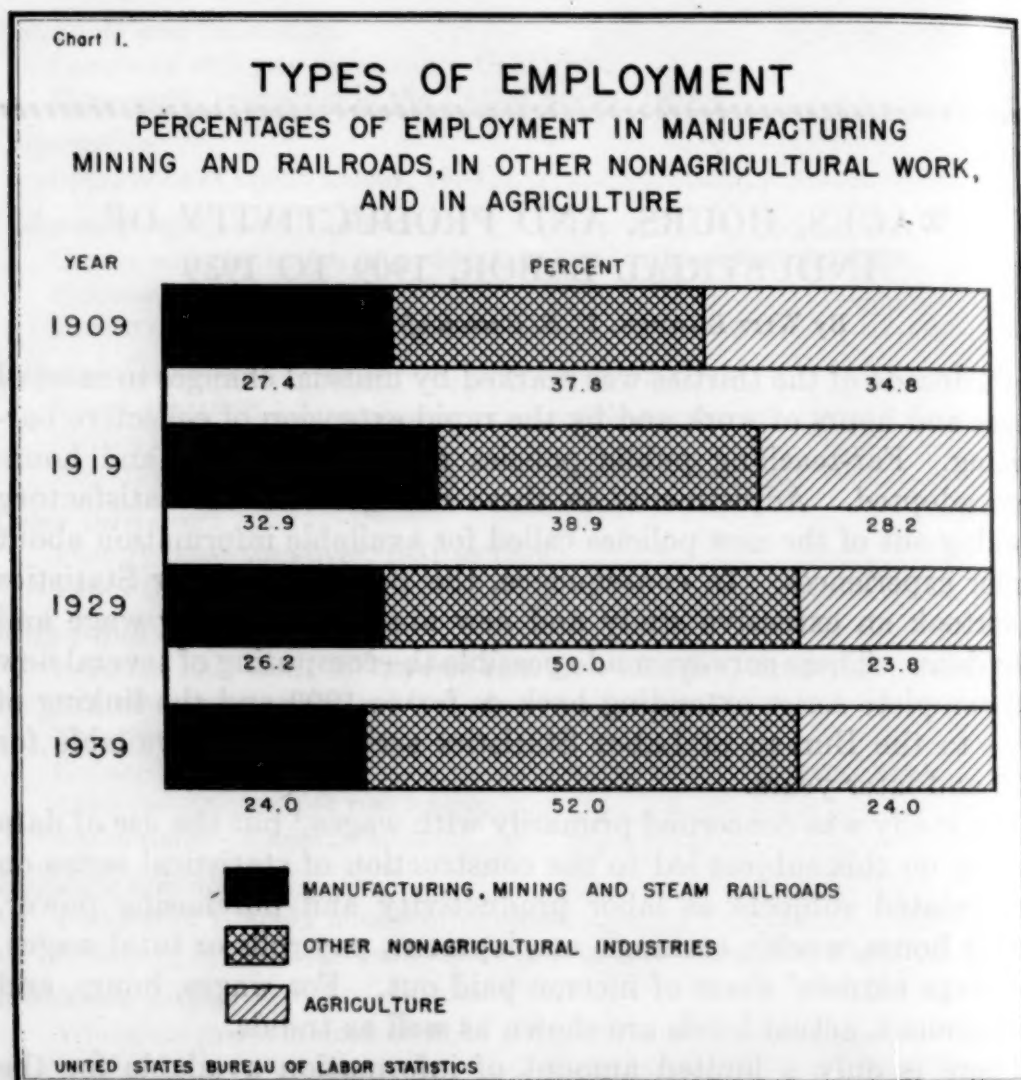
There is only a limited amount of information available for the earlier part of the period from 1909 to 1939, but it is possible, in the

¹ The study began in a project to revise the general index of average hourly earnings extending back to 1840 and first published in the Monthly Labor Review of February 1921. The long period covered by this index required the use of link relatives. For a given period one set of figures was available, and for another period, another set, with significantly different levels of wages. It was assumed that although the levels in dollars were different, the trend of each series was substantially representative of the general trend of the period. Thus, the index represented only the general trend, computed by linking the different series—a method first used extensively by Professor A. L. Bowley in the study of wages in England. The wage structure became increasingly complex, with exceptionally rapid and often divergent changes in wages, especially during the period of the World War and later during the depression beginning in 1929. As a result, there could be no assurance that the linking of earlier and current data would avoid serious distortions of the general trend of hourly wages. The general index was therefore discontinued.

The several series here presented are close approximations, not merely of the trends but also of the absolute levels, of hourly earnings in the varied and basically important fields of manufacturing, mining, and railroad transportation. It is not possible, however, to determine by any adequate tests whether or not average hourly earnings in these industries are representative of earnings in all business enterprises.

Use was made of the numerous wage and hour reports of the Bureau of Labor Statistics throughout the period, the census reports, and various other official sources. Supplementary use was made of such unofficial sources as the important pioneer work on wages and hours in 25 manufacturing industries by the National Industrial Conference Board.

varied fields of manufacturing, mining, and railroad transportation, to compute hourly earnings and other series with assurance of reasonable exactness. The relative importance of manufacturing, mining, and railroad transportation combined, as measured by employment,



Employment as here defined includes salaried workers and the self-employed as well as wage earners; elsewhere, wage earners only are included. In terms of amount produced, the relative importance of manufacturing, mining, and railroads was probably greater in 1939 than in 1909, for output per worker increased more than in the economy as a whole.

increased in the first of the three decades and declined in the second, but the end of the third decade showed little change over its beginning. At the end of the 30 years, employment in these fields as a percentage of total employment was almost the same as at the beginning—24 percent in 1939 and 27 percent in 1909.² (See chart 1.)

² These figures are approximations. The estimated number of persons at work is in each case the average for the year. For 1929 and 1939, the figures used are estimates of nonagricultural employment by the Bureau of Labor Statistics and of agricultural employment by the Bureau of Agricultural Economics. For 1909 and 1919, similar estimates of agricultural employment are available, and nonagricultural employment is estimated by applying to the number of nonagricultural gainfully occupied persons the percentages of unemployment computed by Paul H. Douglas (*Real Wages in the United States, 1890-1926*, p. 460). Differences between average employment and maximum employment in important industries tend to verify as reasonable approximations the estimates by Professor Douglas.

These industries are basic and extremely varied. The part they played in the Nation's total production was probably at least as important in 1939 as in 1909, for although their proportion of total employment was somewhat smaller, they experienced a comparatively rapid advance in labor productivity. Output per worker almost doubled in manufacturing, but increased only about 50 percent in agriculture and very slightly in such important employments as retail trade and many of the service industries. In relative importance mining and railroad transportation lost ground to competing industries, but manufacturing made extensive gains. Some of these gains, as in the manufacture of fuels, electrical goods, road-building machinery and materials, and transportation equipment, partly counteracted the losses by mines and railroads.

Summary of Changes

A general view of the whole period reveals a particularly significant rise of average hourly earnings from 20.7 cents in 1909 to 66.1 cents in 1939. Money earnings are of course affected by changes in cost of living, but even when these changes are taken into account, the resulting figures of real hourly earnings show a rise of 101.5 percent. Average hours of work fell from 51.7 in 1909 to 37.8 in 1939, and weekly and annual earnings therefore did not rise as much as hourly earnings, but there was a gain of 47.0 percent in real weekly earnings, in spite of a reduction of more than a fourth in weekly hours. (See table 1.)

TABLE 1.—*Summary of Changes in Employment, Hours, Earnings, and Productivity in Manufacturing, Mining, and Steam Railroads, 1909-39*¹

Item	1909	1919	1923	1929	1932	1939
Money earnings						
Average hourly earnings:						
Manufacturing, mining, and steam railroads, combined.....	\$0.207	\$0.502	\$0.547	\$0.584	\$0.487	\$0.661
Manufacturing.....	.193	.477	.520	.506	.458	.644
Mining (bituminous, anthracite, and metal-liferous).....	.313	.707	.779	.693	.582	.857
Steam railroads.....	.219	.537	.581	.630	.591	.707
Average weekly earnings:						
Manufacturing, mining, and steam railroads, combined.....	10.83	23.83	25.55	26.78	18.60	25.27
Manufacturing.....	10.38	23.29	25.13	26.40	17.86	24.58
Mining (bituminous, anthracite, and metal-liferous).....	12.41	26.80	27.48	27.56	16.51	24.71
Steam railroads.....	11.77	24.84	26.42	28.26	23.13	30.71

¹ Most of the figures in this table and the other tables are not the results of exact measurements of the whole of the fields covered, but are estimates derived from the best available data, subjected to various tests of adequacy.

TABLE 1.—Summary of Changes in Employment, Hours, Earnings, and Productivity in Manufacturing, Mining, and Steam Railroads, 1909–39—Continued

Item	1909	1919	1923	1929	1932	1939
Indexes of "real" earnings (money earnings adjusted to cost of living) (average 1923–25=100.0)						
"Real" average hourly earnings:						
Manufacturing, mining, and steam railroads, combined	72.5	88.5	98.6	104.7	109.7	146.1
Manufacturing	70.7	87.9	98.0	106.0	107.8	148.8
Mining (bituminous, anthracite, and metal-liferous)	80.0	90.9	102.3	90.6	95.5	138.0
Steam railroads	72.9	89.9	99.4	107.2	126.4	148.3
"Real" average weekly earnings:						
Manufacturing, mining, and steam railroads, combined	82.9	91.8	100.5	104.8	91.5	121.9
Manufacturing	80.4	90.8	100.1	104.6	88.9	120.1
Mining (bituminous, anthracite, and metal-liferous)	90.4	98.3	102.9	102.7	77.3	113.5
Steam railroads	87.6	93.1	101.1	107.6	110.6	144.1
Indexes of labor productivity (average 1923–25=100.0)						
Output per man-hour:						
Manufacturing ¹	62.3	71.9	94.1	124.1	129.6	164.2
Bituminous-coal mining	69.5	85.1	99.2	107.2	115.0	141.0
Anthracite mining	84.8	100.0	103.5	99.8	119.0	178.6
Steam railroads	75.4	85.4	96.4	113.9	111.9	149.3
Hours actually worked						
Average weekly hours:						
Manufacturing, mining, and steam railroads, combined	51.7	46.9	46.1	45.2	37.7	37.8
Manufacturing	52.7	47.8	47.3	45.7	38.2	37.6
Mining (bituminous, anthracite, and metal-liferous)	40.5	39.1	36.1	40.2	28.7	29.0
Steam railroads	53.9	46.3	45.5	44.9	39.1	43.5
Employment and man-hours						
Employment in manufacturing, mining, and steam railroads as a percentage of all employment	27.4	32.9	—	26.2	—	24.0
Number of wage earners (thousands):						
Manufacturing, mining, and steam railroads, combined	8,667	11,322	11,076	10,835	6,799	9,173
Manufacturing	6,273	8,418	8,195	8,369	5,236	7,645
Mining (bituminous, anthracite, and metal-liferous)	831	824	904	712	487	502
Steam railroads	1,563	2,079	1,977	1,755	1,076	1,026
Total man-hours (millions):						
Manufacturing, mining, and steam railroads, combined	23,327	27,620	26,543	25,479	13,328	18,029
Manufacturing	17,191	20,925	20,156	19,888	10,400	14,948
Mining (bituminous, anthracite, and metal-liferous)	1,748	1,677	1,696	1,488	727	756
Steam railroads	4,388	5,018	4,691	4,103	2,201	2,325
Total money wages (in millions)						
Total money wages:						
Manufacturing, mining, and steam railroads, combined	\$4,680	\$13,453	\$14,109	\$14,454	\$6,315	\$11,186
Manufacturing	3,210	9,665	10,152	10,894	4,610	8,955
Mining (bituminous, anthracite, and metal-liferous)	511	1,095	1,233	975	403	588
Steam railroads	959	2,693	2,724	2,585	1,302	1,643
Indexes of total "real" wages (average 1923–25=100.0)						
Total "real" wages:						
Manufacturing, mining, and steam railroads, combined	67.6	97.7	104.6	106.7	58.6	101.9
Manufacturing	63.9	96.9	103.9	111.0	59.0	112.5
Mining (bituminous, anthracite, and metal-liferous)	88.6	95.6	109.9	86.5	44.9	64.3
Steam railroads	72.1	102.0	105.3	99.4	62.9	77.9
Wages as percentage of income						
Wages as percentage of total income payments ⁴ in manufacturing, minerals, and steam railroads, combined	—	64.6	63.6	57.1	51.7	59.5

¹ See table 3, footnotes 1 and 2.² 1914.⁴ See table 7, footnote 3.

Changes in real hourly earnings indicate changes in the amount of goods and services an hour's wage will buy. Real hourly earnings may in turn be compared to the output per hour of labor, commonly called the productivity of labor. Man-hour output increased much more than real earnings per hour. In manufacturing, real hourly earnings were 110.5 percent higher in 1939 than in 1909, in contrast to the much greater rise of 163.6 percent in man-hour output.

The three decades from 1909 to 1939 fall into five periods with clearly defined characteristics. The first decade was dominated by the World War. After the war came the immediate readjustments extending roughly to 1923. There followed a half-dozen years of expansion and apparent prosperity before the crisis of 1929. A precipitous decline marked the 4 years following the crisis. Finally, there were the years of halting revival from 1933 to 1939.

The years from 1909 to 1914 were comparatively stable. The early months of the World War were marked by sharp recession, but in general the war years brought abnormal demands, comparatively full employment, and rapid advances in prices and wage rates. During the entire 10 years from 1909 to 1919, both hourly and weekly earnings in manufacturing, mining, and railroads more than doubled, but prices rose so rapidly that weekly earnings would buy only 10.7 percent more in 1919 than in 1909. The average number of wage earners in manufacturing, mining, and railroads rose from 8,667,000 in 1909 to 11,322,000 in 1919. Average hours of work fell from 51.7 per week in 1909 to 46.9 in 1919. Total pay rolls in the three branches of employment almost trebled, expanding from \$4,680,000,000 to \$13,453,000,000, but when the change in cost of living is taken into account the increase was only 44.5 percent.

The years from 1919 to 1923 may be described as the period of post-war readjustment. It was a time of fluctuating prices; of demobilization and the curtailment of war demands; of the shifting of workers into new employments, or, for considerable numbers, into the ranks of the unemployed; and of industrial disputes in which some of the unions lost ground but from which labor as a whole emerged with gains in shorter hours and higher wages. Employment was somewhat lower in 1923 than in 1919, a decline explainable in part by the fact that many women and emergency wartime workers on the pay rolls in 1919 were no longer employed. The volume of production was much larger in 1923 than in 1919.

From 1923 to 1929, hourly earnings, when adjusted by the index of cost of living, rose 6.2 percent. Man-hour output in contrast rose in most of the industries by a much larger percentage. The increase in man-hour output in manufacturing industries as a whole was 31.9 percent; in bituminous-coal mining, 8.1 percent; and in steam railroads, 18.2 percent. Conditions peculiar to anthracite mining led to

a slight reduction in output per man-hour in that industry. An outstanding characteristic of these years was the decline of wages as a percentage of total income payments in manufacturing, the minerals industries as a whole, and steam railroads. Total wages fell from 63.6 percent of all income payments in these industries in 1923 to 57.1 percent in 1929. The benefits of the rising productivity of labor were not in general transferred through price reductions to consumers, for the index of cost of living was higher during most of the period than in 1923.

Between 1929 and 1932, hourly earnings in manufacturing, mining, and railroads fell sharply, but somewhat less so than cost of living. The extreme decline in hours of work (from 45.2 hours in 1929 to 37.7 in 1932), combined with the fall in hourly earnings, reduced real weekly earnings 12.7 percent in spite of the reduction in cost of living. The outstanding change was the precipitous fall in employment. The number of wage earners in the three branches of employment combined fell from 10,835,000 to 6,799,000, or 37.2 percent. At the same time, as an accompaniment to the fall in average weekly hours, the total number of man-hours was cut almost in half. There was an even greater fall in total pay rolls expressed in money wages, and even when adjusted to the cost of living the aggregate wage in these industries was only a little more than half as large as in 1929. Wages as a percentage of income payments in manufacturing, the minerals industries, and railroads declined sharply during these depression years.

After 1932, average weekly earnings rose from \$18.60 in 1932 to \$25.27 in 1939, an increase of 35.9 percent. Weekly earnings adjusted to cost of living increased 33.2 percent. Hourly earnings rose from 48.7 cents in 1932 to 66.1 cents in 1939, thus regaining the loss sustained after 1929 and rising to a level never previously attained. In 1939, the average number of wage earners in the combined industries was 9,173,000, a rise of 34.9 percent over 1932. The average hours of work were virtually the same in 1939 as in 1932. This is explained by the fact that the extensive reductions in the normal or regularly scheduled hours of labor were accompanied by reductions in the amount of part time.

The rise in pay rolls from 1932 to 1939, when adjusted for changes in cost of living, was 73.9 percent. Aggregate wages regained a large part of the loss of the years from 1929 to 1932. Wage payments in manufacturing, all of the minerals industries, and steam railroads combined rose from 51.7 percent of all income payments in these industries in 1932 to 59.5 percent in 1939, thus regaining the losses sustained after 1929, but not those of the preceding decade.

One of the significant gains of these 30 years was the recognition of the profound change in the American market.³ In earlier decades, frontier growth at home and expansion in undeveloped areas of the world were accompanied by an almost uninterrupted increase of opportunities both for the investment of surplus income and for the profitable employment of labor. New conditions made no longer possible the former dependence on an expanding national and world economy and shifted the emphasis to the internal market for consumers' goods. Wages, previously considered primarily as cost of production, came to be viewed also as the predominant part of the income flow required to sustain internal markets and to maintain without interruption the cycle of production and consumption.

The preceding paragraphs give a summary analysis. A more detailed discussion of each of the topics summarized follows.

Hourly Earnings

EXTENT OF CHANGE

During the decade of the World War, from 1909 to 1919, the abnormal wartime demands drained off much of the labor supply into the armed forces and at the same time brought about a rapid rise in prices. Under these conditions, wage rates naturally increased. In 1909, workers in manufacturing, mining, and railroads averaged only 20.7 cents an hour. In 1919, the average was 50.2 cents an hour, and by 1924 there was a further increase to 56.8 cents.⁴ Between 1924 and 1930, there was no marked change in hourly earnings, but the period of depression beginning in 1929 was marked by a reduction from 58.4 cents in 1929 to 48.0 cents in 1933. An upward trend beginning in 1934 became most marked between 1936 and 1937 but continued throughout the remainder of the period. In the last year of the period, hourly earnings attained the highest level of the entire 30 years. (See table 2.)

Comparisons of the changes in earnings per hour in manufacturing, mining, and railroads indicate that wage earners in manufacturing had the smallest increase in cents but the largest percentage increase. The smallest percentage increase was in mining, and yet during the three decades this group of industries exhibited the most extreme fluctuations in hourly earnings. The least amount of fluctuation was in the hourly wage of railroad workers. Traffic rates charged by the railroads were not subject to the same degree of instability as were commodity prices, especially the prices of manufactured goods. Thus, freight revenues per ton-mile in 1909 were \$0.763; in 1919, \$0.987; in

³ Noteworthy in this connection are the Hearings before the Temporary National Economic Committee, especially Part 1, Economic Prologue (Washington, 1939) and Part 9, Savings and Investment (Washington, 1940).

⁴ The years intervening between 1919 and 1924 were marked by considerable fluctuations in both wages and cost of living. Statistics of union rates and of general wages in selected industries indicate increases in 1920 and declines in 1921 or 1922, and thereafter an upturn in wages. The index of cost of living rose sharply between 1919 and June 1920, and thereafter, by 1922, returned approximately to the level of early 1919.

1923, \$1.132; in 1929, \$1.088; in 1932, \$1.056; and in 1935, \$0.998.⁴ Returns to manufacturers are measured roughly by the wholesale price of finished products. After 1909, the price index of finished products more than doubled, then returned by 1932 to substantially the pre-war level, and thereafter fluctuated above the pre-war level.

TABLE 2.—Average Hourly Earnings of Wage Earners in Manufacturing, Mining, and Steam Railroads, and Index of Cost of Living, 1909, 1914, 1919, 1923-39

[Index numbers: Average 1923-25=100.0]

Year	Average hourly earnings								Index of cost of living ⁴
	Amount (cents)				Index numbers				
	Manufacturing, mining, and steam railroads	Manufacturing	Mining ¹	Steam railroads ²	Manufacturing, mining, and steam railroads	Manufacturing	Mining ¹	Steam railroads ²	
1909	20.7	19.3	31.3	21.9	36.9	36.0	40.7	37.1	⁴ 50.9
1914	23.7	22.3	34.4	25.2	42.3	41.6	44.7	42.7	58.2
1919	50.2	47.7	70.7	53.7	89.5	88.9	91.9	90.9	101.1
1923	54.7	52.0	77.9	58.1	97.6	97.0	101.3	98.4	99.0
1924	56.8	54.5	77.1	59.2	101.3	101.6	100.2	100.2	99.2
1925	56.7	54.4	75.8	59.9	101.1	101.4	98.5	101.4	101.8
1926	57.1	54.8	75.8	59.9	101.8	102.2	98.5	101.4	102.6
1927	57.3	55.2	73.7	61.0	102.2	102.9	95.8	103.3	100.7
1928	57.9	56.0	71.5	61.8	103.3	104.4	92.9	104.6	99.5
1929	58.4	56.6	69.3	63.0	104.2	105.5	90.1	106.7	99.5
1930	57.5	55.2	69.5	63.8	102.6	102.9	90.3	108.0	96.9
1931	54.7	51.7	67.3	64.4	97.6	96.4	87.5	109.0	88.2
1932	48.7	45.8	58.2	59.1	86.9	85.4	75.6	100.1	79.2
1933	48.0	45.5	55.7	58.7	85.6	84.8	72.4	99.4	75.0
1934	55.7	54.1	69.1	59.5	99.3	100.9	89.8	100.7	77.7
1935	57.9	55.9	74.0	64.3	103.3	104.2	96.2	108.9	79.6
1936	58.6	56.4	77.1	65.1	104.5	105.2	100.2	110.2	80.4
1937	64.8	63.4	82.8	66.9	115.6	118.2	107.6	113.3	83.4
1938	65.7	63.9	84.7	70.4	117.2	119.1	110.1	119.2	81.8
1939	66.1	64.4	85.7	70.7	117.9	120.1	111.4	119.7	80.7

¹ Bituminous coal, anthracite, and metalliferous. Based, in coal mining, on time at face excluding lunch.

² In this table and also in tables 3 to 6, steam railroad statistics apply to class I roads only. The relative importance of class I roads has been virtually constant. Their car-miles represented 98.8 percent of the total in 1915, 98.3 percent in 1923, and 99.5 percent in 1929 and 1936. The figures for 1909 are the averages of the 2 fiscal years ending June 30, 1910. Since the figures then published included all classes of roads, estimates for class I roads were computed by means of ratios for the fiscal year 1910-11. The 1914 figures were derived from data for the fiscal year ending June 30, 1915. For some of the years, data for switching and terminal companies were eliminated by means of ratios. Earnings are based on "time paid for."

³ Revised index taking into account changes in distribution of expenditures as shown by the 1934-36 study of family expenditures of wage earners and lower-salaried workers made by the Bureau of Labor Statistics.

⁴ The 1913 cost-of-living figure multiplied by the ratio of the 1909 to the 1913 index of the retail price of food.

At the beginning of the three decades, average hourly earnings were 13.5 percent higher in steam railroads than in manufacturing; and at the end of the period, only 9.8 percent higher. In mining, earnings per hour were materially higher than in manufacturing throughout the period, and with the exception of the years 1932 and 1933, higher also than in railroad transportation. In the twenties, wages of manufacturing and railroad workers remained fairly stable but the earnings of miners declined. This was largely a result of the break-down of collective bargaining and the progressive disintegration of the union-wage structure in bituminous-coal mining. After 1929, railroad workers suffered the smallest decline in their hourly earnings, and after 1932, they made the smallest gains. (See chart 2.)

In most industries, men's wages are higher than women's, and mining enterprises and steam-railroad companies employ a relatively high

proportion of adult male workers. Furthermore, unusual risks, a relatively high degree of skill, and responsibility for the lives of others are required in many of the occupations in both mining and railroad transportation.

CAUSES OF CHANGES IN HOURLY EARNINGS

In large and varied fields of employment, there are constant changes in the relative numbers of workers receiving various rates of pay and in the number of hours of labor at each rate level. These changes may of course have some effect on average hourly earnings (the weighted rate of pay) independently of changes in the separate rates. Thus, during the World War there was a shifting of employment into industries with unusually high rates of pay, and a reversal of the movement after the war. During the rapid downturn in business after 1929, there was a comparatively small decline in employment in the relatively low-paid industries, notably some of the consumption-goods industries, and this tended to lower the general average. Changes in technological methods, such as new modes of transportation, restricted the field of railroad transportation and expanded other transportation industries with a consequent shift in the relative numbers employed at different rates. The commercializing of domestic services and entertainment has been accompanied by the formation of new wage groups.

When only a few occupations with widely divergent numbers and rates of pay are considered, changes in the numbers as well as changes in the separate rates may have serious effects in altering the average rate. When, however, the field covered is large and varied, any change in the average rate is mainly an effect of changes in the separate rates.⁶

⁶ The average wage rate has at times been viewed as being independent of the differences in the separate rates and the varying numbers receiving the different rates. The separate occupational rates in the different plants, no matter how divergent in size and in numbers receiving the rates, were converted to index numbers. These numbers (showing percentage changes in the separate rates) were added and averaged, and the simple averages of the index numbers for the years covered were viewed as an index of wage rates. Information regarding the varying amount of employment and size of pay rolls was formerly of course relatively inadequate, and the methods used were in a sense adapted to the limitations of the data. This was the method used, in connection with daily rates, by the Aldrich Committee in its frequently used index of "relative wages in all occupations" from 1840 to 1891, although the Committee also computed a general index by weighting the relatives for the several industries by the numbers employed or numbers gainfully occupied. (U. S. Congress. Senate. Committee on Finance. Report on Wholesale Prices, Wages, and Transportation, March 3, 1893 (Washington, 1893), Part I, pp. 110-177.)

More recent conceptions of an average wage rate require that both the differences in the separate rates and the different numbers receiving them be taken into account. When the rates of pay of (let us say) 50 carpenters each receiving \$1.00 an hour, 10 electricians each receiving 80 cents an hour, and 200 laborers each receiving 40 cents an hour are combined into a general rate, the separate rates should be weighted by the man-hours of employment at each rate.

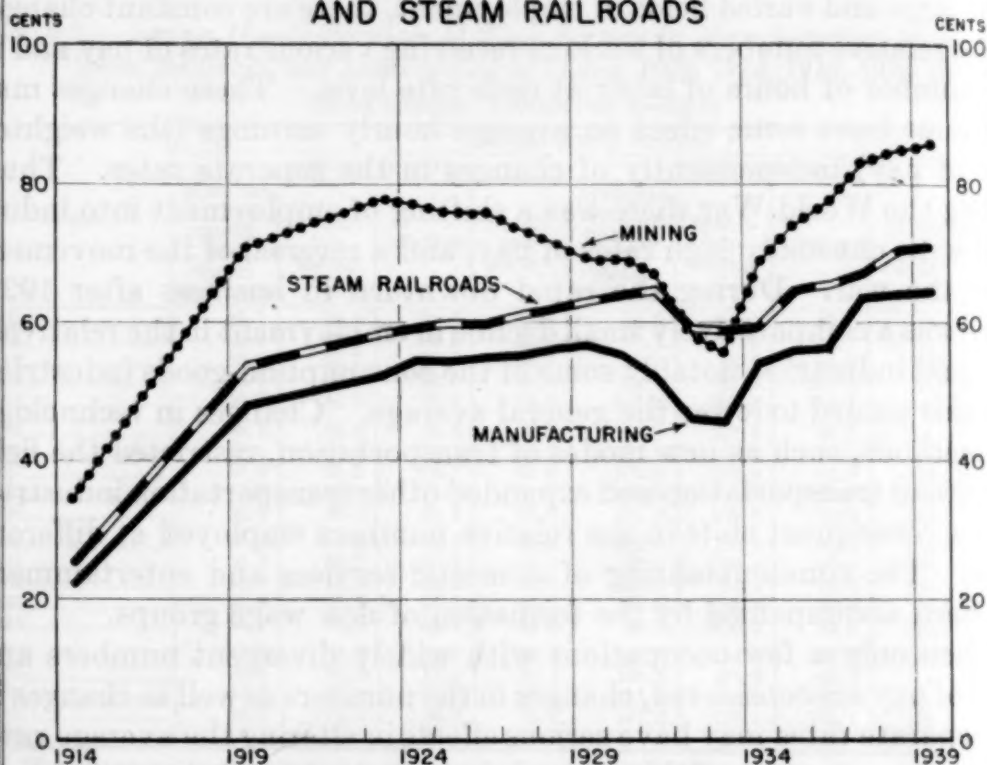
But this direct method of ascertaining the separate rates and combining them on the basis of the numbers receiving each rate can be used only in limited fields. The number of rates (both time rates and piece rates) is almost infinite and there is a bewildering rapidity of change in the kinds of work demanded, in the degrees of skill required, and in the numbers receiving the separate rates. However, the equivalent of such a weighted average rate is obtainable by computing average hourly earnings. It is a relatively simple problem to obtain extensive samples of both pay rolls and man-hours. The pay-roll figures include wages paid both for piece work and for time work, and the man-hours include time worked on both a time basis and a piece basis. The number of dollars of aggregate wages divided by the number of hours of aggregate time worked therefore gives average hourly earnings, and the figure thus obtained is the equivalent of the weighted average rate.

A change in wage rates may cause or be accompanied by a shift in the proportions of workers at different rate levels or in the speed of piece workers or in other factors affecting average hourly earnings. Therefore, a change of say 10 percent in rates of pay might not be accompanied by a change of exactly 10 percent in average hourly earnings.

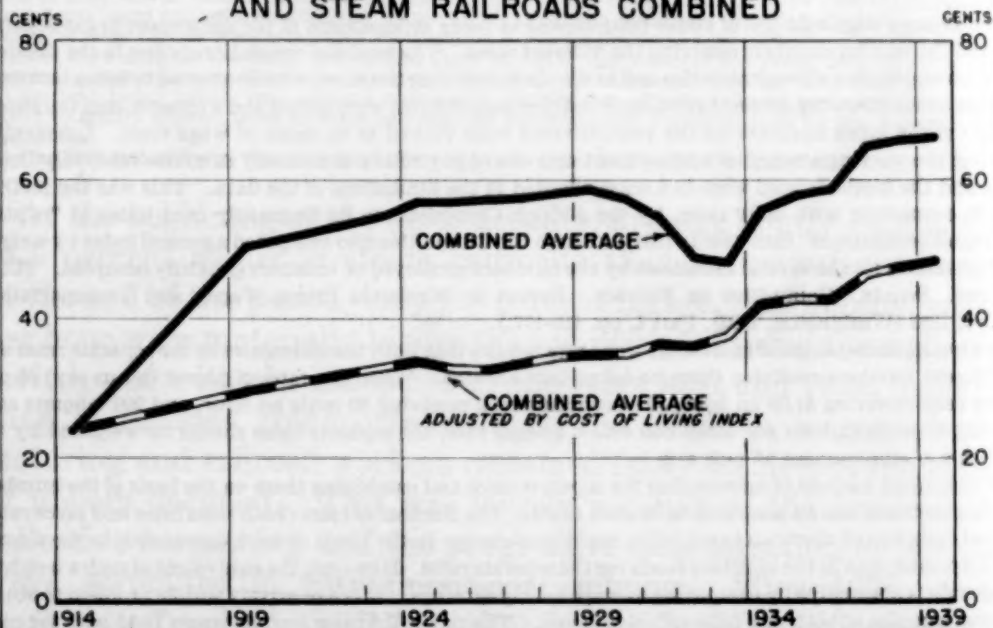
Chart 2.

AVERAGE HOURLY EARNINGS 1914-1939

MANUFACTURING, MINING AND STEAM RAILROADS



MANUFACTURING, MINING AND STEAM RAILROADS COMBINED



UNITED STATES BUREAU OF LABOR STATISTICS

1914 TO 1923: DATA FOR 1914,
1919, 1923 ONLY.

The main causes of changes in rates of pay during the three decades have been the growth of collective bargaining; the adoption of public policies affecting wages; price changes; and changes in technology and the productivity of labor.

The influence of the first factor, collective bargaining, grew with unionization. In 1909, the estimated membership in trade-unions (not merely in manufacturing, mining, and railroads, but in all employments) totaled about 2,006,000; in 1919, 4,125,000; in 1929, 3,443,000; and in 1939, between 8,500,000 and 9,000,000.⁷ In the meantime, the number of persons with gainful occupations other than in agriculture increased from about 25,000,000 in 1909 to about 43,250,000 in 1939. Assuming that the change, on a percentage basis, in the number of persons with gainful occupations other than in agriculture was approximately the same as the change in the number of workers normally eligible for membership in labor organizations, there was an increase of only about 75 percent in the number of workers who form the potential membership of labor organizations. In contrast, there was more than a fourfold increase in the membership of labor organizations, and therefore general advances in wages were more easily secured and retained.

A second cause of the rise in the compensation of labor, especially during the latter part of the period from 1909 to 1939, was public policy, although the action of public agencies in connection with strikes and industrial disputes has tended at times to force employees to yield and accept reductions or forego advances. During the World War, public agencies were established for adjusting industrial disputes, and the provisions of Government contracts for war supplies tended to raise wages. Public policy thus became an outstanding influence on wages. After the World War, there was a policy of nonintervention so far as legislative and administrative agencies were concerned, but the courts were utilized extensively by employers, especially through injunctions, to check the influence of labor organizations. As a result, there was passed in 1932 the Norris-LaGuardia Act to limit the use of injunctions in labor disputes.

Minimum-wage legislation was enacted in some States, but unfavorable court decisions seriously halted the efforts to establish minimum wages by law. The extreme reductions of wages in some industries during the depression beginning in 1929 were followed by the enactment of the wage-and-hour provisions of the National Industrial Recovery Act, under which an attempt was made on a Nation-wide basis to establish minimum rates of pay for virtually all types of workers. The invalidation of this law by the United States Supreme Court was followed by the loss of only a small part of the advances in wages made under the law. The National Industrial Recovery Act also

⁷ Estimates before 1939 are by Leo Wolman in Bulletin No. 68, National Bureau of Economic Research, p. 2: Union Membership in Great Britain and the United States.

defended the workers' right to organize and to deal collectively with employers. The invalidation of the law was followed by the National Labor Relations Act for maintaining these rights of workers, and this in turn was followed by a rapid increase in union membership and a rapid expansion of the fields of employment covered by collective agreements.

Further developments in public policy relating to wages included the Public Contracts Act of 1936, under which Government supply contracts must contain minimum-wage provisions, and the Fair Labor Standards Act of 1938, which established progressive standards of minimum wages and maximum hours for all industries engaged in interstate commerce or in producing goods for interstate commerce. Still another public policy affecting wage rates was embodied in the emergency employment program. Under this program workers were paid prevailing rates and given employment such as enabled them to live without competing for private jobs at rates of pay tending to cause a progressive break-down of the wage structure.

Two other influences of outstanding importance affecting rates of wages were technology and price. Changes in prices most directly affecting wage earners are embodied in the cost-of-living index. (See table 2.) Technological changes and the accompanying rise in labor productivity and in volume of production created an economic basis for increases in the compensation of workers.

Productivity and Purchasing Power

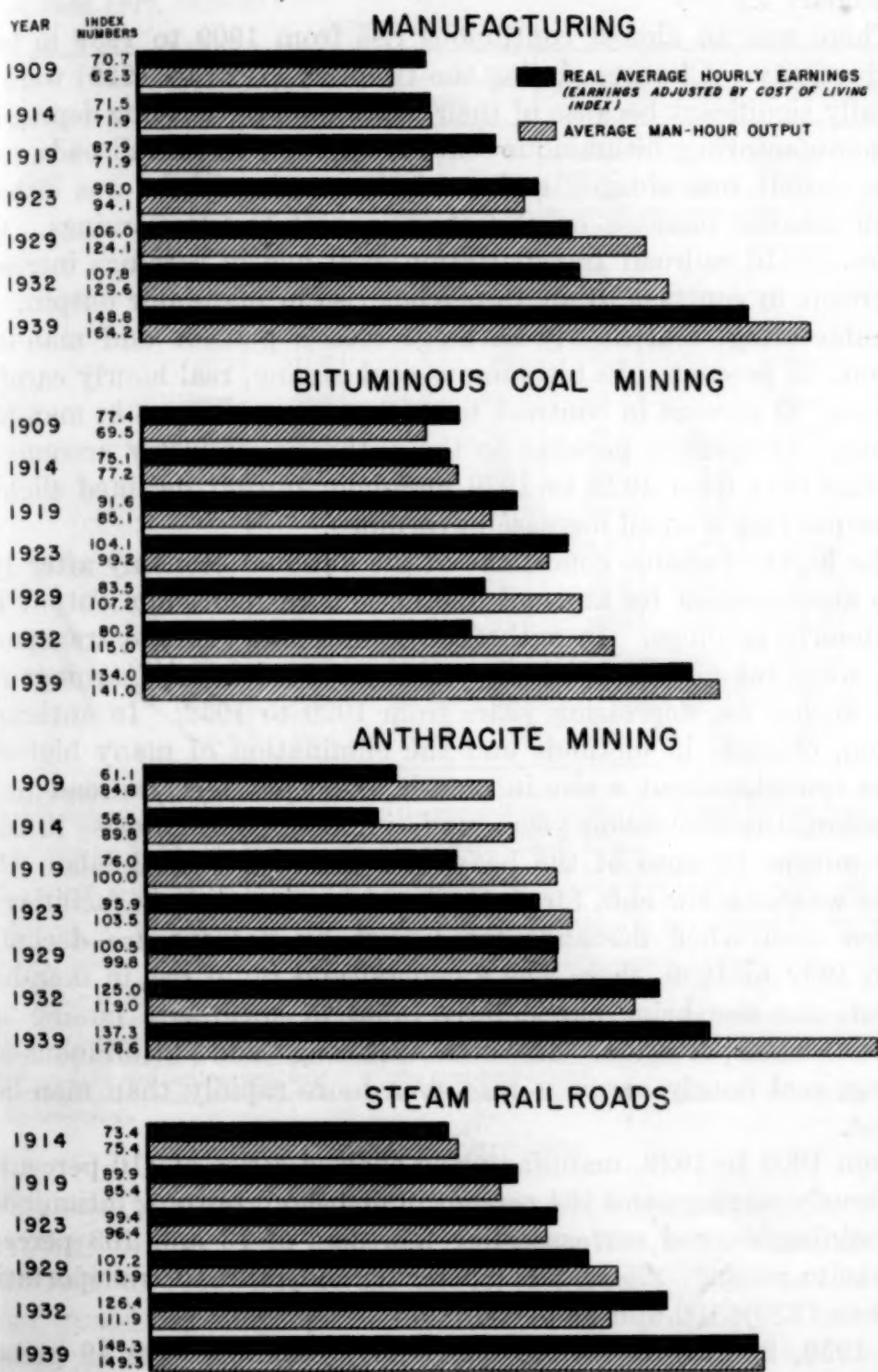
The average amount of wages paid for an hour of labor when allowances are made for changes in cost of living measures approximately the purchasing power of wages and indicates roughly what wage earners draw out of the national product per hour of labor. The productivity of labor in the sense of the amount produced per hour of labor indicates the general level of industrial efficiency on which depends the amount produced for consumption. A comparison of real hourly earnings with man-hour productivity indicates roughly whether or not the wage earners' rate of consumption is keeping pace with the basic or man-hour rate of production.⁸ Indexes of production are available for manufacturing as a whole,⁹ for bituminous-coal

⁸ For a further development of this conception, see *Productivity, Wages, and National Income*, by Surgeon Bell, Washington, Brookings Institution, 1940. This volume emphasizes the view that it is more important for employers to distribute the benefits of increasing productivity to consumers generally through lower prices than to wage earners through higher wages.

⁹ The index here used, except for 1938 and 1939, is that of the National Bureau of Economic Research. The Board of Governors of the Federal Reserve System constructs a monthly index making use of the seriously restricted data currently available. In constructing this index there has been difficulty in taking full account of new industries, increased processing, elaboration of products, and utilization of byproducts. (See Federal Reserve Bulletin, February 1940, p. 83.) The index constructed by the National Bureau of Economic Research is designed to take account of such changes by the use of the full coverage of census years. The index is described in detail in a forthcoming volume of the National Bureau of Economic Research, entitled, "The Output of Manufacturing Industries, 1890-1937," by Solomon Fabricant. A revised Federal Reserve Board index, appearing for the first time in the August 1940 Federal Reserve Bulletin, makes use of monthly data in a manner that corrects much of the bias in the former index.

Chart 3.

REAL AVERAGE HOURLY EARNINGS AND AVERAGE MAN-HOUR OUTPUT 1923-25 = 100



UNITED STATES BUREAU OF LABOR STATISTICS

FOR SOURCES OF PRODUCTION DATA, SEE TABLE 3.

This chart reveals the economic basis of the remarkable rise in real hourly earnings or earnings in terms of purchasing power. This basis was the increase in man-hour output, commonly called labor productivity.

mining, for anthracite mining, and for steam railroads.¹⁰ From these indexes of production and from the figures of man-hours (table 5) indexes of man-hour output have been constructed for comparison with the indexes, for the same industries, of real hourly earnings. (See chart 3.)

There was an almost continuous rise from 1909 to 1939 in labor productivity. Changes during the twenties (1923 to 1929) were especially significant because of their bearing on the ensuing depression. In manufacturing, bituminous-coal mining, and steam railroads, man-hour output rose sharply and at the same time there was either a much smaller increase or a decline in real hourly earnings. (See table 3.) In railroad transportation, real hourly earnings increased 8 percent in contrast to an 18-percent rise in man-hour output. In manufacturing, real hourly earnings rose 8 percent and man-hour output, 32 percent. In bituminous-coal mining, real hourly earnings declined 20 percent in contrast to an 8-percent advance in man-hour output. Conditions peculiar to the anthracite industry account for the fact that from 1923 to 1929 man-hour output declined slightly, accompanying a small increase in earnings.

The highly variable conditions of the national economy after 1929 were accompanied by unusual fluctuations in man-hour output and real hourly earnings. In anthracite mining and railroad transportation, wage rates were relatively stable and real hourly earnings rose even during the depression years from 1929 to 1932. In anthracite mining, changes in methods and the elimination of many high-cost mines brought about a rise in man-hour output. In railroad transportation, the depression years made impossible an increase in man-hour output because of the heavy burden of overhead labor when traffic was at a low ebb, for the railroads must maintain facilities for service even when demands for service by patrons are declining. From 1932 to 1939, there was a general and rapid rise in man-hour output, the rise being particularly rapid in anthracite mining and railroad transportation. In manufacturing and bituminous-coal mining, real hourly earnings rose even more rapidly than man-hour output.

From 1909 to 1939, manufacturing showed a rise of 110 percent in real hourly earnings and 164 percent in man-hour output; bituminous-coal mining showed corresponding increases of 73 and 103 percent; anthracite mining, 125 and 111 percent; and railroad transportation (1914 to 1939), 102 and 98 percent.

In 1939, in manufacturing, real hourly earnings were 49 percent above the average from 1923 to 1925, and man-hour output was 64 percent above the 1923-25 level. Corresponding increases in bitu-

¹⁰ Revenue passenger-miles times 2.6 plus revenue ton-miles. (See *Monthly Labor Review*, July 1937, pp. 78-101: Productivity, Hours, and Compensation of Railroad Labor, 1933 to 1936, by Witt Bowden. Reprinted as Serial No. R. 597.)

minous-coal mining were 34 and 41 percent; in anthracite mining, 37 and 79 percent; and in railroad transportation, 48 and 49 percent.

TABLE 3.—*Index Numbers of Average Hourly Earnings Adjusted by Cost-of-Living Index and of Output per Man-Hour in Manufacturing, Coal Mining, and Steam Railroads, 1909, 1914, 1919, 1923-39*¹

[Average 1923-25=100.0]

Year	Manufacturing		Bituminous-coal mining		Anthracite mining		Steam railroads	
	Average hourly earnings adjusted by cost-of-living index	Output per man-hour ²	Average hourly earnings adjusted by cost-of-living index	Output per man-hour ²	Average hourly earnings adjusted by cost-of-living index	Output per man-hour ²	Average hourly earnings adjusted by cost-of-living index	Output per man-hour ²
1909.....	70.7	62.3	77.4	69.5	61.1	84.8	72.9	75.4
1914.....	71.5	71.9	75.1	77.2	56.5	89.8	73.4	85.4
1919.....	87.9	71.9	91.6	85.1	76.0	100.0	89.9	96.4
1923.....	98.0	94.1	104.1	99.2	95.9	103.5	99.4	99.3
1924.....	102.4	99.6	100.0	100.9	103.6	97.7	101.0	104.6
1925.....	99.6	106.5	95.9	100.2	100.4	98.2	99.6	107.1
1926.....	99.6	110.0	93.5	99.5	99.2	98.7	98.8	106.8
1927.....	102.2	113.7	91.1	100.8	100.5	101.7	102.6	112.1
1928.....	104.9	121.9	87.8	104.5	101.1	101.5	105.1	113.9
1929.....	106.0	124.1	83.5	107.2	100.5	99.8	107.2	113.8
1930.....	106.2	123.8	86.3	111.9	102.7	97.3	111.5	124.6
1931.....	109.3	133.0	89.6	117.1	112.1	103.7	123.6	124.6
1932.....	107.8	129.6	80.2	115.0	125.0	119.0	126.4	124.6
1933.....	113.1	136.3	81.5	109.1	130.9	130.8	132.5	125.4
1934.....	129.9	139.2	105.5	111.0	127.5	122.6	129.6	131.0
1935.....	130.9	149.4	114.2	114.5	124.1	125.5	136.8	140.5
1936.....	130.8	152.3	120.5	120.5	124.4	139.8	137.1	143.2
1937.....	141.7	148.2	125.3	123.8	125.7	147.8	135.9	141.5
1938.....	145.6	150.4	131.1	129.4	135.2	171.9	145.7	149.3
1939.....	148.8	164.2	134.0	141.0	137.3	178.6	148.3	

¹ Each of these indexes is derived by dividing one index by another (a production index by a man-hours index or an index of average hourly earnings by the cost-of-living index), the original indexes being on the 1923-25 base. The base-period figures of the derived indexes represent the average output (or the real hourly earnings) over the 3-year period and not the average of the 3 yearly figures.

² The production index used in computing man-hour output up to 1937 is the National Bureau of Economic Research index, not yet published but supplied by Mr. Solomon Fabricant of the National Bureau of Economic Research. This index, which was constructed from the detailed data collected by the Bureau of the Census, is described in a forthcoming volume by Mr. Fabricant, to be published by the National Bureau, and entitled, "The Output of Manufacturing Industries, 1899-1937." For the years 1937 to 1939 the Federal Reserve Board index is linked to the National Bureau of Economic Research index. The latter was designed to make use of methods applicable to the complete coverage of the Census of Manufactures but not suited to tracing monthly changes from restricted data.

³ The index of production used is derived from tonnage figures. This index minimizes production in recent years because it fails to take account of cleaning, sorting, and adaptation to specialized needs. The rise in man-hour output is therefore minimized. With declining production, the elimination of high-cost mines, especially anthracite mines, tended to raise man-hour output.

⁴ The production index used is derived from revenue traffic units (revenue passenger-miles times 2.6 plus revenue ton-miles).

Weekly Earnings

The weekly money earnings of the average wage earner in manufacturing, mining, and railroad transportation more than doubled from 1909 to 1919, but at the end of the decade, the wage earner's dollar would buy only half as much as at its beginning. The weekly average in 1909 was \$10.83; in 1919, \$23.83; in 1923, \$25.55; and in 1929, \$26.78. There followed sharp reductions in money wages and somewhat smaller declines in cost of living during the depression years, but in 1934 both money earnings and cost of living turned upward.

In buying power, although not in dollars, weekly earnings were higher in 1939 than in any previous year. (See chart 4.)

The average weekly wage (table 4) is the average of the wages of all types of workers—regularly employed full-time workers and part-time and overtime workers. Part-time and overtime workers as proportions of the total vary both from industry to industry and from time to time in the same industry.¹¹

Estimates of real earnings require the use of a price or cost-of-living index for converting money earnings to dollars of constant purchasing power. Costs of living are so complex and varied that estimates of real earnings are necessarily approximations and are generally recognized as such, but estimates extending over the past 30 years are subject to a limitation that calls for special note. This is the fact that workers are now more dependent on wages than formerly. Even three decades ago a much larger proportion of wage-earning families carried on canning, preserving, dressmaking, and similar work in the home, cultivated gardens, and depended on their own resources for many domestic services and for recreation.¹²

Hourly earnings in mining generally averaged much higher than in manufacturing, but weekly earnings in mining were usually only a little higher and were at times lower, for hours of work in mining were much shorter. (See tables 4 and 5.) A sharp upturn in miners' earnings in 1926 accompanied a large increase of bituminous-coal production and a reduction of part time. In the following year, miners' earnings fell sharply, accompanying a decline in production, an increase in part time, and a reduction of rates of pay. There followed a widespread break-down of the wage structure in bituminous-coal mining, a disintegration that continued into the years of depression after 1929. From 1929 to 1932, miners' earnings declined more than did earnings in manufacturing and railroad transportation. From 1931 to 1933 and again in 1937 and 1938, weekly earnings in mining were somewhat lower than in manufacturing.

The railroads maintained both their wage rates and their prices as embodied in their traffic rate structure with relatively slight impairment. In railroad employment there is a comparatively high proportion of older workers who are protected by the specialized nature of their work and by seniority rules and union agreements. Many railroad workers lost their jobs, but the upper grades of employees,

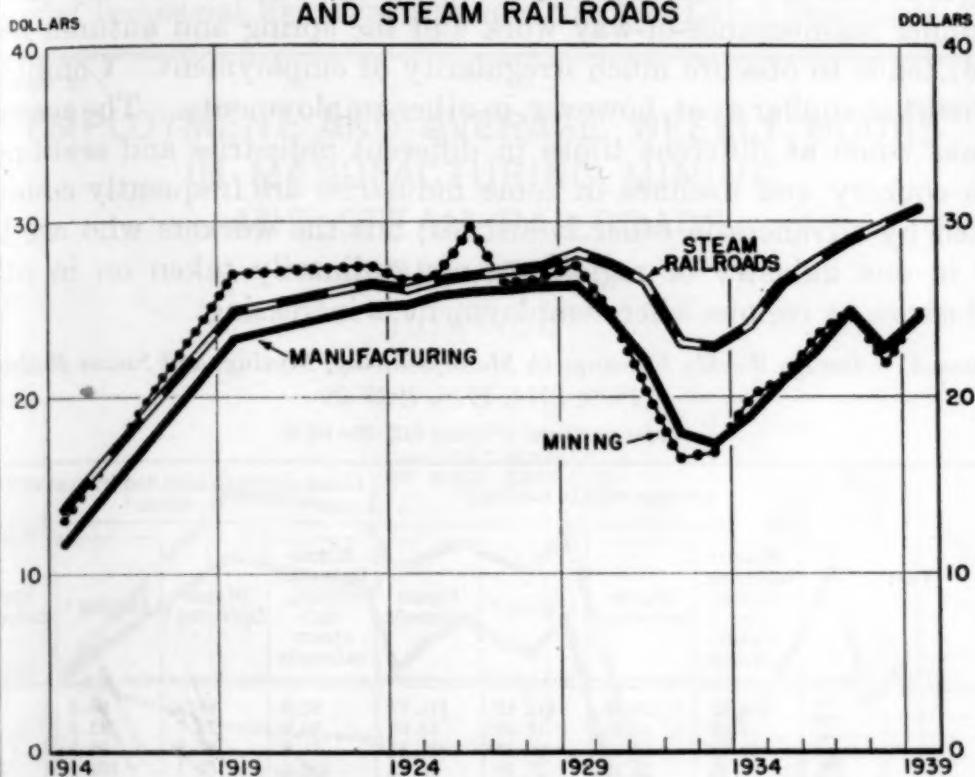
¹¹ Average weekly earnings in manufacturing and mining are now computed on an annual basis by adding sample pay rolls for the 12 reporting weeks (usually the week ending nearest the middle of the month) and similarly by adding the number of workers (including part-time and overtime workers) on the pay rolls during the 12 weeks and by dividing the sum of the pay rolls by the sum of the workers. For the period from 1909 to 1932, the estimated average weekly pay roll in each main branch of employment was divided by the estimated average number of employees, and the resulting series were adjusted to the 1932-39 series by means of the ratios for 1932. For railroads, average weekly earnings were computed from the Interstate Commerce Commission's figures of employment and pay rolls.

¹² The increasing dependence on money wages has been counteracted in part, no doubt, by a decentralizing tendency in some industries and by the suburban movement, which in turn were stimulated by motor transportation, planned housing, and electric power.

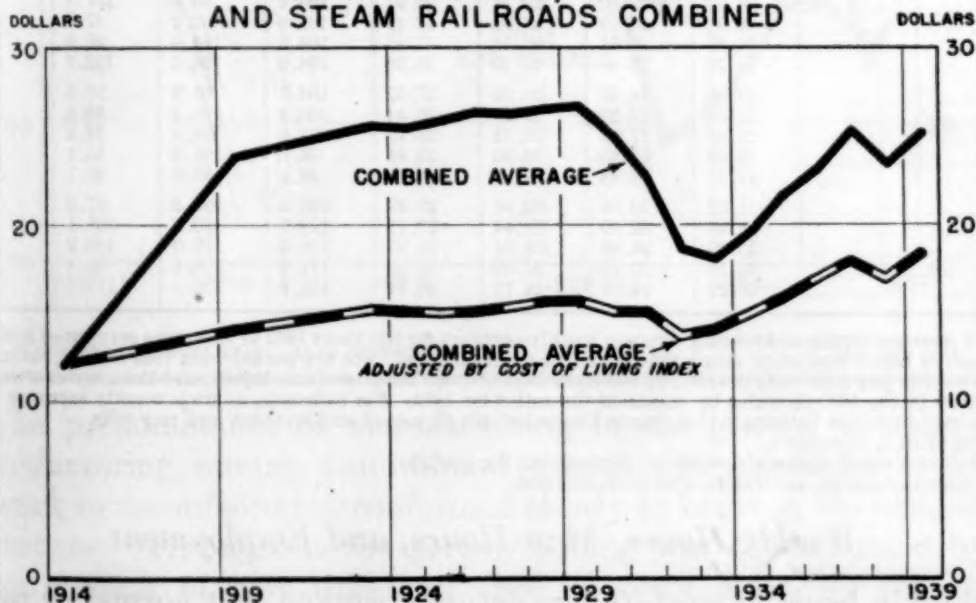
Chart 4.

AVERAGE WEEKLY EARNINGS 1914-1939

MANUFACTURING, MINING
AND STEAM RAILROADS



MANUFACTURING, MINING
AND STEAM RAILROADS COMBINED



UNITED STATES BUREAU OF LABOR STATISTICS

1914 TO 1923: DATA FOR 1914,
1919, 1923 ONLY.

Average weekly earnings indicate better than average hourly earnings the relation of the worker's wage to his standard of living, for weekly earnings depend on the amount of work available. Weekly earnings advanced much less (or declined more) than hourly earnings, up to 1932, because of reductions in average hours of work.

more commonly able to hold their jobs, had comparatively full employment. Weekly earnings of railroad workers have usually shown comparative stability when the general average is considered, but the fact that seasonal peaks come at different times for different types of railroad work and in different sections of the country (as the summer maintenance-of-way work and the spring and autumn haulage) tends to obscure much irregularity of employment. Conditions somewhat similar exist, however, in other employments. The seasonal peaks come at different times in different industries and sections of the country and declines in some industries are frequently counteracted by advances in other industries; but the workers who are laid off in one industry or region are not ordinarily taken on in other industries or regions where employment is increasing.

TABLE 4.—Average Weekly Earnings in Manufacturing, Mining, and Steam Railroads 1909, 1914, 1919, 1923-39

[Index numbers: Average 1923-25=100.0]

Year	Average weekly earnings ¹				Index numbers adjusted by cost-of-living index ²			
	Manu- facturing, mining, and steam railroads	Manu- facturing ³	Mining ⁴	Steam railroads	Manu- facturing, mining, and steam railroads	Manu- facturing ³	Mining ⁴	Steam railroads
1909.....	\$10.83	\$10.38	\$12.41	\$11.77	82.9	80.4	90.4	87.6
1914.....	12.09	11.61	13.06	13.66	80.9	78.7	83.2	88.8
1919.....	23.83	23.29	26.80	24.84	91.8	90.8	98.3	93.1
1923.....	25.55	25.13	27.48	26.42	100.5	100.1	102.9	101.1
1924.....	25.51	25.24	26.64	26.14	100.2	100.3	99.6	99.8
1925.....	25.95	25.71	26.78	26.63	99.3	99.6	97.5	99.1
1926.....	26.44	26.00	29.74	26.91	100.4	99.9	107.5	99.3
1927.....	26.31	26.10	26.34	27.19	101.8	102.2	97.0	102.3
1928.....	26.55	26.34	26.54	27.49	103.9	104.4	98.9	104.6
1929.....	26.78	26.40	27.56	28.26	104.8	104.6	102.7	107.6
1930.....	25.06	24.53	24.95	27.57	100.7	99.8	95.5	107.7
1931.....	22.64	22.02	20.41	26.54	100.0	98.4	85.8	113.9
1932.....	18.60	17.86	16.51	23.13	91.5	88.9	77.3	110.6
1933.....	18.09	17.36	16.80	22.84	94.0	91.3	83.1	115.3
1934.....	19.65	18.93	19.93	24.11	98.5	96.0	95.1	117.5
1935.....	21.52	20.85	20.94	26.49	105.3	103.3	97.6	126.1
1936.....	23.26	22.60	23.44	27.72	112.7	110.8	106.1	130.6
1937.....	25.40	24.95	24.94	28.93	118.6	118.0	110.9	131.4
1938.....	23.48	22.70	21.92	29.98	111.9	109.4	99.4	138.9
1939.....	25.27	24.58	24.71	30.71	121.9	120.1	113.5	144.1

¹ In manufacturing and mining, average weekly earnings for the years 1932 to 1939 were computed from the Bureau of Labor Statistics' employment and pay-roll samples. For the period from 1909 to 1932, estimated total weekly pay rolls were divided by the estimated average number of employees, and these series were then adjusted to the 1932-39 series by means of the ratios for 1932. For railroads, average weekly earnings were computed from the Interstate Commerce Commission's figures of employment and pay rolls.

² See table 3, footnote 1.

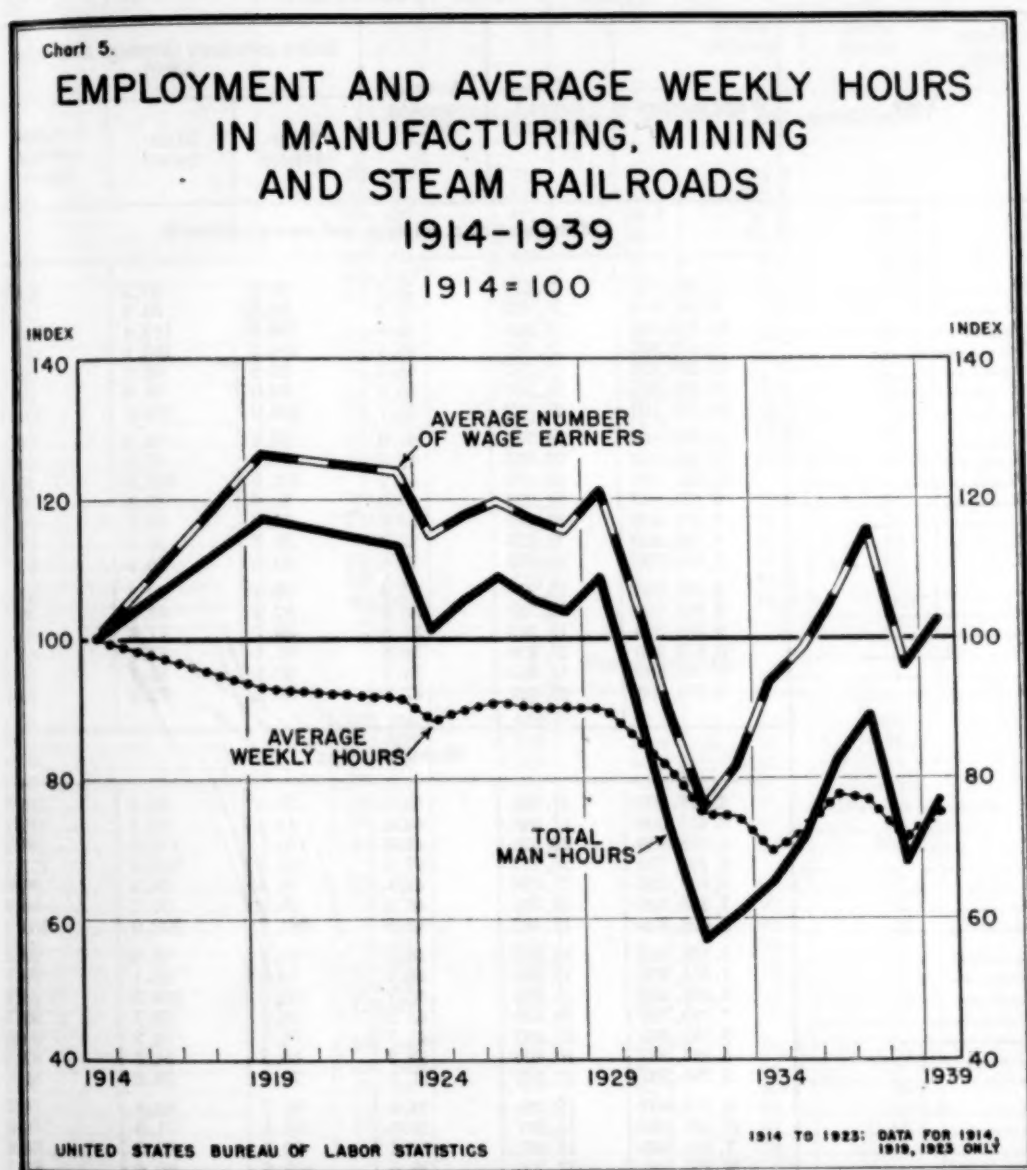
³ Railroad repair shops are excluded throughout the period.

⁴ Bituminous-coal, anthracite, and metalliferous.

Weekly Hours, Man-Hours, and Employment

Weekly hours of work (hours actually worked, not normal or regularly scheduled hours) averaged 51.7 in 1909 and 46.9 in 1919. During the next decade there was little change. Most of the sharp reduction from 45.1 hours in 1929 to 37.7 in 1932 was caused by increased part time and the sharing of work. The average in 1939 was 37.8 hours, about the same as in 1932. (See chart 5.) After 1932, the averages

were influenced by two contrary tendencies. The reduction of part time tended to raise the averages. At the same time, however, a widespread reduction of the normal length of shifts and of the hours of plant operation tended to lower the averages. The reduction of normal hours was brought about largely by collective bargaining, the National Industrial Recovery Act, and the Fair Labor Standards Act.



The predominance of manufacturing in the general average for manufacturing, mining, and railroads accounts for the fact that hours of work in manufacturing conformed closely to hours in the combined industries. Throughout the period, mining was characterized by a large amount of part time and also, in many areas, by collective agreements for hours of labor materially shorter than in many other industries. These circumstances account for the fact that average hours in the mining industries were usually shorter than in manufacturing or railroad transportation. The general average in the mining industries fell from 40.5 hours in 1909 to 39.1 hours in 1919. The

average in 1929 rose to 40.2 hours but fell to only 28.7 hours in 1932, about the same as in 1939. Railroad workers as a rule had comparatively long hours. The average in 1909 was 53.9 hours; in 1919, 46.3; in 1929, 44.9; in 1932, 39.1; and in 1939, 43.5. (See table 5.)

TABLE 5.—Average Number of Wage Earners, Total Man-Hours, and Average Weekly Hours in Manufacturing, Mining, and Steam Railroads, 1909, 1914, 1919, 1923-39

Year	Wage earners ¹	Man-hours ² (millions)	Average weekly hours ³	Index numbers (average 1923-25=100.0)		
				Wage earners	Man-hours	Average weekly hours
Manufacturing, mining, and steam railroads						
1909.....	8,666,900	23,327	51.7	81.5	93.2	114.3
1914.....	8,960,600	23,465	50.3	84.3	93.8	111.2
1919.....	11,322,000	27,620	46.9	106.5	110.4	103.7
1923.....	11,075,500	26,543	46.1	104.1	106.1	101.9
1924.....	10,299,800	23,783	44.4	96.8	95.0	98.2
1925.....	10,529,600	24,760	45.2	99.0	98.9	99.9
1926.....	10,727,100	25,528	45.7	100.9	102.0	101.0
1927.....	10,494,800	24,705	45.2	98.7	98.7	99.9
1928.....	10,344,700	24,361	45.2	97.3	97.3	99.9
1929.....	10,835,100	25,479	45.2	101.9	101.8	99.9
1930.....	9,523,800	21,292	43.0	89.6	85.1	95.1
1931.....	8,071,400	17,146	40.8	75.9	68.5	90.2
1932.....	6,799,300	13,328	37.7	63.9	53.3	83.3
1933.....	7,300,700	14,233	37.5	68.6	56.9	82.9
1934.....	8,385,500	15,214	34.9	78.8	60.8	77.2
1935.....	8,821,100	16,757	36.5	82.9	67.0	80.7
1936.....	9,539,500	19,345	39.0	89.7	77.3	86.2
1937.....	10,359,500	20,808	38.6	97.4	83.1	85.3
1938.....	8,592,800	15,953	35.7	80.8	63.7	78.9
1939.....	9,172,900	18,029	37.8	86.3	72.0	83.6
Manufacturing						
1909.....	6,273,200	17,191	52.7	79.5	90.4	113.7
1914.....	6,614,000	17,540	51.0	83.8	92.2	110.1
1919.....	8,418,400	20,925	47.8	106.7	110.0	103.2
1923.....	8,194,700	20,156	47.3	103.8	105.9	102.1
1924.....	7,609,100	17,964	45.4	96.4	94.4	98.0
1925.....	7,875,000	18,960	46.3	99.8	99.7	99.9
1926.....	8,024,300	19,403	46.5	101.7	102.0	100.4
1927.....	7,851,500	18,903	46.3	99.5	99.4	99.9
1928.....	7,865,200	18,854	46.1	99.6	99.1	99.5
1929.....	8,368,800	19,888	45.7	106.0	104.5	98.6
1930.....	7,292,700	16,496	43.5	92.4	86.7	93.9
1931.....	6,162,300	13,362	41.7	78.1	70.2	90.0
1932.....	5,235,500	10,400	38.2	66.3	54.7	82.4
1933.....	5,790,500	11,382	37.8	73.4	59.8	81.6
1934.....	6,763,900	12,134	34.5	85.7	63.8	74.5
1935.....	7,202,600	13,671	36.5	91.3	71.9	78.8
1936.....	7,810,800	15,881	39.1	99.0	83.5	84.4
1937.....	8,569,300	17,200	38.6	108.6	90.4	83.3
1938.....	7,079,700	13,069	35.5	89.7	68.7	76.6
1939.....	7,645,100	14,948	37.6	96.9	78.6	81.2

¹ Manufacturing excludes railroad repair shops. In railroads, the numbers receiving pay during the month are used, with ratio adjustments of middle-of-month figures before 1933; and all employees are classed as wage earners except the following groups as numbered in the Interstate Commerce Commission's current classification (or corresponding earlier groups): Groups 1-5, 13, 17, 19-22, 27, 44, 50-52, 78, 84, 85, 99, 105, 106. In mining, Census and Bureau of Labor Statistics' data are used, with figures for years not covered by these agencies estimated from Bureau of Mines and State data.

² Equivalent to average number of employees times average weekly hours (see footnote 3). For mining, up to 1932, Bureau of Mines figures were used, with alterations suggested by supplementary data and with adjustments to Bureau of Labor Statistics' data.

³ In manufacturing and mining, for years 1932 to 1939, weekly hours are from Bureau of Labor Statistics' man-hour samples. In manufacturing, for years 1909 to 1932, weekly hours were computed by dividing man-hours (derived from pay rolls and hourly earnings) by employment and linking to the 1932-1939 series by the 1932 ratio. In mining it was necessary to adapt methods to the varied and at times fragmentary data; see footnote 2 above on man-hours and table 6, footnote 2, on pay rolls. For railroads, weekly hours are man-hours divided by employment.

TABLE 5.—Average Number of Wage Earners, Total Man-Hours, and Average Weekly Hours in Manufacturing, Mining, and Steam Railroads, 1909, 1914, 1919, 1923-39—Continued

Year	Wage earners	Man-hours (millions)	Average weekly hours	Index numbers (average 1923-25=100.0)		
				Wage earners	Man- hours	Average weekly hours
Mining (bituminous-coal, anthracite, and metalliferous)						
1909	831,000	1,748	40.5	98.3	111.0	113.0
1914	863,700	1,739	38.7	102.2	110.3	108.0
1919	824,400	1,677	39.1	97.5	106.4	109.1
1923	903,800	1,696	36.1	106.9	107.6	100.7
1924	829,000	1,522	35.3	98.1	96.6	98.5
1925	803,200	1,509	36.1	95.0	95.8	100.7
1926	813,400	1,698	40.1	96.2	107.7	111.9
1927	804,700	1,528	36.5	95.2	97.0	101.9
1928	730,400	1,439	37.9	86.4	91.3	105.8
1929	711,500	1,488	40.2	84.2	94.4	112.2
1930	668,100	1,273	36.6	79.0	80.8	102.1
1931	593,200	1,956	31.0	70.2	60.6	86.5
1932	487,400	727	28.7	57.7	46.1	80.1
1933	489,400	778	30.6	57.9	49.4	85.4
1934	568,200	853	28.9	67.2	54.1	80.7
1935	579,700	855	28.3	68.6	54.2	79.0
1936	602,900	958	30.5	71.3	60.8	85.1
1937	625,700	982	30.2	74.0	62.3	84.3
1938	537,500	718	25.7	63.6	45.6	71.7
1939	502,000	756	29.0	59.4	48.0	80.9
Steam railroads						
1909	1,562,700	4,388	53.9	82.4	99.1	120.6
1914	1,482,900	4,186	54.1	78.2	94.6	121.0
1919	2,079,200	5,018	46.3	109.6	113.4	103.6
1923	1,977,000	4,601	45.5	104.2	106.0	101.8
1924	1,861,700	4,297	44.1	98.2	97.1	98.7
1925	1,851,400	4,291	44.5	97.6	96.9	99.6
1926	1,889,400	4,427	44.9	99.6	100.0	100.4
1927	1,838,600	4,274	44.6	96.9	96.6	99.8
1928	1,749,100	4,068	44.5	92.2	91.9	99.6
1929	1,754,800	4,103	44.9	92.5	92.7	100.4
1930	1,563,000	3,523	43.2	82.4	79.6	96.6
1931	1,315,900	2,828	41.2	69.4	63.9	92.2
1932	1,076,400	2,201	39.1	56.8	49.7	87.5
1933	1,020,800	2,073	38.9	53.8	46.8	87.0
1934	1,053,400	2,227	40.5	55.5	50.3	90.6
1935	1,038,800	2,231	41.2	54.8	50.4	92.2
1936	1,125,800	2,506	42.6	59.4	56.6	95.3
1937	1,164,500	2,626	43.2	61.4	59.3	96.6
1938	975,600	2,166	42.6	51.4	48.9	95.3
1939	1,025,800	2,325	43.5	54.1	52.5	97.3

The average worker in manufacturing, mining, and railroad transportation had about 14 hours more leisure per week or about $2\frac{1}{2}$ hours more per working day in 1939 than in 1909. At the same time, in terms of the things a dollar could buy, for every dollar the average weekly pay envelope contained in 1909, it had \$1.47 in 1939. These remarkable gains were accompanied by even more noteworthy advances in labor productivity.

Total man-hours are the product of number of workers and average hours of work, and since hours of work underwent an almost constant reduction up to 1934, employment increased more (or declined less

during recessions) than total man-hours. The general average of weekly hours was about the same in 1932 and 1939, and between these years the percentage change in man-hours was therefore the same as in number of wage earners. Viewing the three decades as a whole, in 1939 the average number of wage earners was 5.8 percent greater than the number in 1909. In contrast, the total number of man-hours in 1939 was 22.7 percent less than in 1909. (See table 5.) The increase in the average number of wage earners was wholly accounted for by the growth of the manufacturing industries. The number in manufacturing was 6,273,200 in 1909, and 7,645,100 in 1939. In contrast, employment in the mining industries fell from 831,000 in 1909 to 502,000 in 1939, and in railroad transportation, from 1,562,700 in 1909 to 1,025,800 in 1939.¹³

Pay Rolls and Wage Earners' Share of Income

Total wage payments in manufacturing, mining, and steam railroads almost trebled from 1909 to 1919, rising from \$4,680,000,000 to \$13,453,000,000. During the next 10 years there were few extreme fluctuations. The total in 1929 was \$14,454,000,000, and in 1932, \$6,315,000,000, much less than half of the 1929 aggregate. The high point between 1932 and 1939 was \$12,608,000,000, in 1937.

When expressed in terms of purchasing power, total wages showed much smaller variations. There was a rise of about 99 percent in the cost-of-living index from 1909 to 1919. The rise continued until 1920, when a decline set in and the index, up to 1929, remained comparatively near the 1919 level. When pay rolls were being reduced so sharply after 1929, there was a fall in the cost of living, but so great was the reduction in wage payments that pay rolls adjusted by the cost-of-living index were 17 percent lower in 1932 than in 1914. The rapid rise in wage payments from 1932 to 1937 brought the total, when adjusted for changes in cost of living, to the highest point of the entire period. (See chart 6.)

Changes in the comparative status of manufacturing, mining, and railroads appear from a comparison of the trends of pay rolls in the three branches of employment. (See table 6.) Pay rolls reflect, for example, the difficulties faced by the mining industries and railroad transportation in competition with other forms of fuel and power and modes of transportation. Factory production, on the other hand,

¹³ The number of wage earners is the average of all full-time, part-time, and overtime workers on the pay rolls during the 12 reporting periods of each year. Average weekly hours, as stated above, are affected by part time, overtime, and labor turn-over and are materially lower than full-time hours of regularly employed workers. Thus, in manufacturing as a whole, average hours actually worked in 1909, 1914, 1919, 1923, and 1929 were from 7 to 10 percent less than prevailing hours or normal hours of work as computed from census data. The later increase in part time added to the difference.

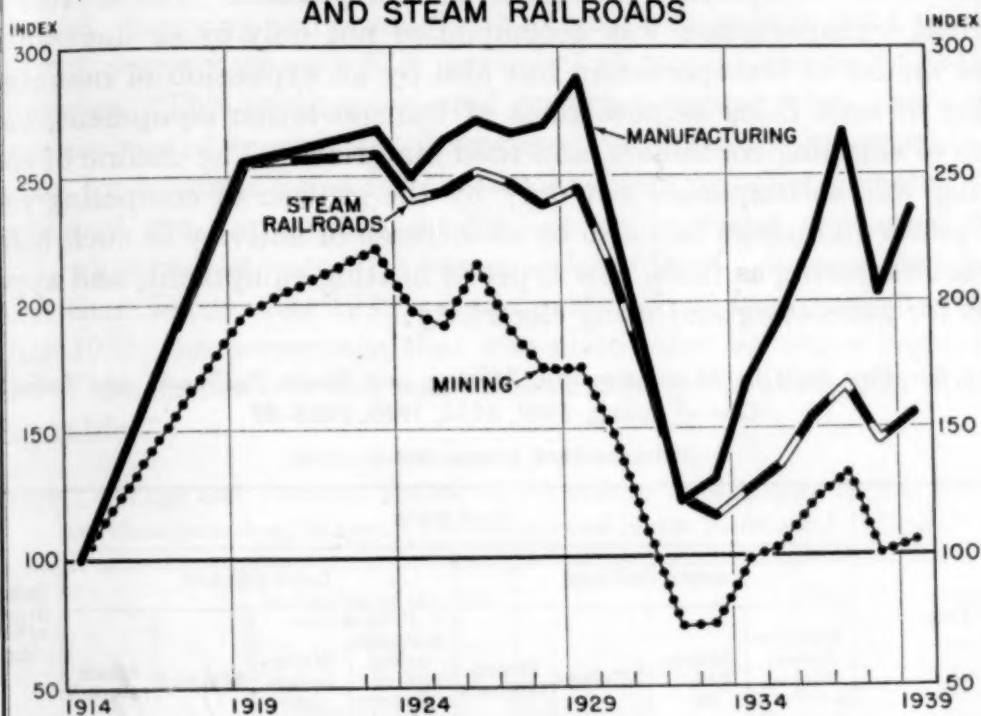
Chart 6.

PAY ROLLS

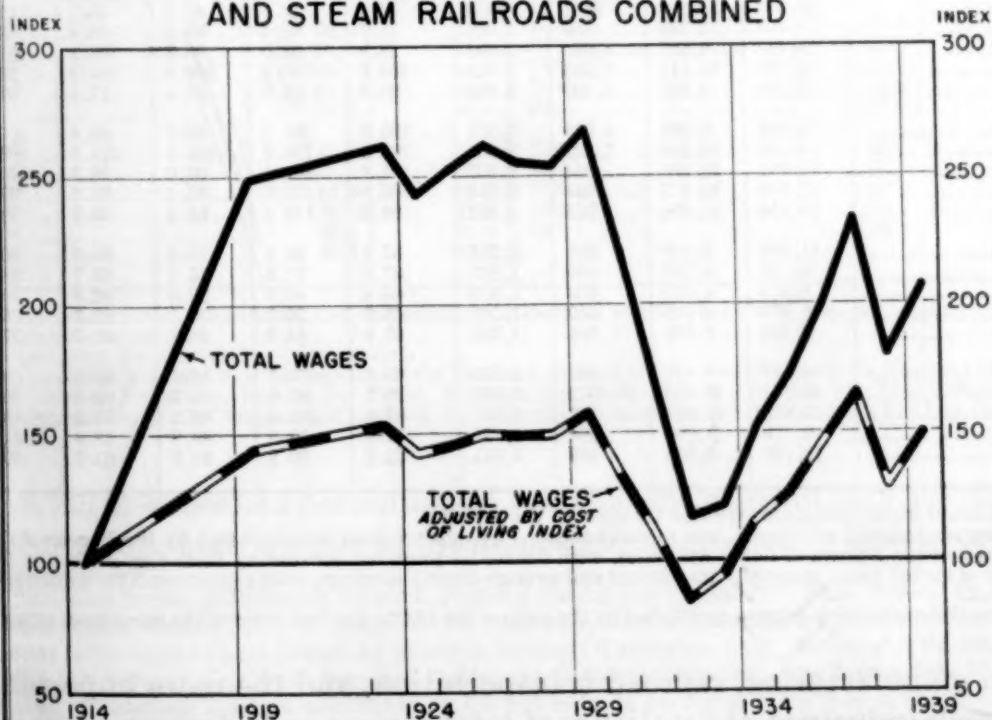
1914-1939

1914=100

MANUFACTURING, MINING
AND STEAM RAILROADS



MANUFACTURING, MINING
AND STEAM RAILROADS COMBINED



UNITED STATES BUREAU OF LABOR STATISTICS

1914 TO 1923: DATA FOR 1914,
1919, 1923 ONLY

extended its area of operations. Commercialized manufacturing profited during the period by the continued shift from household and handicraft-shop industries in such fields as canning and apparel, and by the development or expansion of important new industries, such as electrical equipment, automobiles, and plastics. The decline of railroad transportation was accompanied not only by an increase in other modes of transportation but also by an expansion of manufacturing in such fields as new kinds of transportation equipment, new types of shipping containers, and road materials. The decline of coal mining was accompanied not only by the growth of competing fuel and power industries but also by an increase of activity in such fields of manufacturing as fuels, new types of heating equipment, and apparatus for generating and using electricity.

TABLE 6.—Pay Rolls in Manufacturing, Mining, and Steam Railroads, and Index of Cost of Living, 1909, 1914, 1919, 1923–39

[Index numbers: Average 1923–25=100.0]

Year	Total wages								Index of cost of living
	Amount (millions)				Index numbers				
	Manufacturing, mining, and steam railroads	Manufacturing ¹	Mining ²	Steam-railroads	Manufacturing, mining, and steam railroads	Manufacturing ¹	Mining ²	Steam railroads	
1909.....	\$4,680	\$3,210	\$511	\$959	34.4	32.5	45.1	36.7	³ 50.9
1914.....	5,403	3,788	559	1,056	39.7	38.4	49.3	40.4	58.2
1919.....	13,453	9,665	1,095	2,693	98.8	98.0	96.7	103.1	101.1
1923.....	14,109	10,152	1,233	2,724	103.6	102.9	108.8	104.2	99.0
1924.....	13,112	9,468	1,100	2,544	96.3	96.0	97.1	97.4	99.2
1925.....	13,616	9,980	1,065	2,571	100.0	101.1	94.0	98.4	101.8
1926.....	14,138	10,285	1,202	2,651	103.9	104.2	106.1	101.5	102.6
1927.....	13,761	10,100	1,054	2,607	101.1	102.4	93.0	99.8	100.7
1928.....	13,690	10,212	964	2,514	100.6	103.5	85.1	96.2	99.5
1929.....	14,454	10,894	975	2,585	106.2	110.4	86.1	98.9	99.5
1930.....	11,896	8,818	831	2,247	87.4	89.4	73.3	86.0	96.9
1931.....	9,115	6,689	605	1,821	67.0	67.8	53.4	69.7	88.2
1932.....	6,315	4,610	403	1,302	46.4	46.7	35.6	49.8	79.2
1933.....	6,570	4,945	409	1,216	48.3	50.1	36.1	46.5	75.0
1934.....	8,243	6,368	551	1,324	60.6	64.5	48.7	50.7	77.7
1935.....	9,327	7,311	581	1,435	68.5	74.1	51.3	54.9	79.6
1936.....	10,767	8,463	672	1,632	79.1	85.8	59.3	62.5	80.4
1937.....	12,608	10,108	743	1,757	92.6	102.4	65.5	67.2	83.4
1938.....	9,779	7,690	564	1,525	71.8	77.9	49.8	58.4	81.8
1939.....	11,186	8,955	588	1,643	82.2	90.8	51.9	62.9	80.7

¹ Railroad repair shops are excluded throughout the period.

² Bituminous-coal, anthracite, and metalliferous. Pay rolls are from data collected by the Bureau of the Census and the Bureau of Labor Statistics, with figures for years not covered by these agencies computed by use of varied data, especially man-hours and average hourly earnings, with adjustments for conformity to trend.

³ The 1913 cost-of-living figure multiplied by the ratio of the 1909 to the 1913 index of the retail price of food.

In manufacturing, railroad transportation, and the more important minerals industries, the statistics of total income and of wages are comparatively adequate. It is possible, therefore, on the basis of recent

revisions of income statistics ¹⁴ to compute wages as percentages of total income in these industries.

In 1919, wages were 64.6 percent of all income payments in manufacturing, railroad transportation, and the minerals industries (bituminous-coal, anthracite and metalliferous mines, oil wells and natural gas, and quarrying and nonmetallic mines), and in 1920, 66.4 percent. In 1929, wages were only 57.1 percent of all income payments in these industries. This decline occurred during a period when there were large savings of income not distributed as income payments but retained by business firms for the stockholders or other owners. The decline of the comparative amount going to wages continued until 1932, when wages were 51.7 percent of the total. Income payments other than wages after 1929 were in part derived from earlier savings. After 1932, the percentage that was distributed as wages regained a part of the earlier loss and was somewhat larger in 1939 than in 1929. (See table 7.)

TABLE 7.—*Wage and Nonwage Income as Percentages of Aggregate Income Paid Out in Manufacturing, Minerals Industries,¹ and Steam Railroads,² 1919-39³*

Year	Percentages of aggregate income going to—		Year	Percentages of aggregate income going to—	
	Wages	Income payments other than wages		Wages	Income payments other than wages
1919.....	64.6	35.4	1930.....	53.4	46.6
1920.....	66.4	33.6	1931.....	52.2	47.8
1921.....	61.3	38.7	1932.....	51.7	48.3
1922.....	61.8	38.2	1933.....	55.1	44.9
1923.....	63.6	36.4	1934.....	57.2	42.8
1924.....	61.8	38.2	1935.....	57.9	42.1
1925.....	61.1	38.9	1936.....	57.5	42.5
1926.....	60.5	39.5	1937.....	59.4	40.6
1927.....	58.9	41.1	1938.....	58.6	41.4
1928.....	57.4	42.6	1939.....	59.5	40.5
1929.....	57.1	42.9			

¹ Bituminous-coal, anthracite, and metalliferous mines, oil wells and natural gas, and quarrying and nonmetallic mines.

² Including Pullman and railway express.

³ Computed from the income statistics of the National Bureau of Economic Research in *National Income and Capital Formation, 1919-35*, by Simon Kuznets (pp. 62-63), for 1919 to 1929, and of the Bureau of Foreign and Domestic Commerce of the U. S. Department of Commerce for 1929 to 1939, linked by the 1929 ratios.

A fall in wages as a percentage of total income paid out may, of course, occur when there is a rise in the amount of wages paid. This occurred

¹⁴ National Bureau of Economic Research, *National Income and Capital Formation, 1919-35*, by Simon Kuznets (New York, 1937); U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, *Income in the United States, 1929-37*, by Robert R. Nathan (Washington, 1938). Revisions of the data from 1929 to 1939 were supplied by the Bureau of Foreign and Domestic Commerce. The figures of the National Bureau of Economic Research were linked by the 1929 ratios to the figures of the Bureau of Foreign and Domestic Commerce.

In many industries it is not possible on the basis of existing information to distinguish between wages and salaries. Even for the total amount of income in the form of wages and salaries, rough approximations are necessary. Estimates of total income are also approximations.

at times from 1919 to 1929, when total wage payments increased, though not as much as nonwage income. From 1929 to 1932, nonwage income also declined, but not as rapidly as wages. After 1932, wage payments and nonwage income both increased, but the larger increase was in wages.

The income of wage earners is, of course, not confined to wages. Some wage earners receive dividends, interest, direct relief, etc., but such income has no direct connection with their employment as wage earners. Social-security benefits have become increasingly important, but these benefits are partly derived from wage deductions.

Other forms of income, essentially social in nature, are enjoyed by all members of the community, but there is no way of computing the several shares of "social income." These forms of income include, for example, the use of public facilities, publicly supported enterprises such as schools, roads, and parks, and many institutions more commonly maintained by private endowments and contributions, such as museums, hospitals, foundations, and universities. Wage earners help to maintain such institutions and services, especially by consumption taxes, which are often hidden; and other classes as well as wage earners enjoy their advantages. Many institutions, such as universities and research agencies, are in fact used mainly by other classes. Nonwage classes also have been the primary beneficiaries of farm benefit payments, tariff protection, subsidies, and public loans at low rates to businessmen, home owners, and farmers.

The traditional conception of free competitive enterprise assumed an automatic flow of real income into consumption to the extent that the income produced is not needed for capital expenditures. This flow might result from positive changes in the proportions of income received by the various groups, as through wage-rate changes, or it might result from changes in prices affecting consumers generally and indirectly affecting the distribution of income. From 1920 to 1932, wage earners, the main consuming group, received a declining proportion of income paid out, at least in manufacturing, the minerals industries, and railroads.¹⁵ The index of cost of living, after a post-war readjustment in 1921, was higher than in 1922 in each year thereafter, up to 1929, and there was no significant decline before the setting in of uncontrolled deflation. During the same period, capital expenditures were hardly keeping pace with national income.

¹⁵ It must not be assumed that a rigid proportion of income should go to any particular group. This is especially true if one is considering shares from some one type of productive activity, manufacturing, for example. It is conceivable that a declining share of income going to wages in the industries here covered might reflect changes in capital investment or in the use of power, accompanied by a transfer of wage earners to other industries or to other economic groups in these industries. The relative decline of wages in these industries has, nevertheless, a vital significance, for it was not accompanied by marked increases in the proportion of national income going to capital investment or by the effective absorption of wage earners at other points of the national economy.

Wage earners are not able to save or invest extensively, and capital expenditures come largely from nonwage income. There was an almost continuous increase from 1920 to 1932 in the proportion of nonwage income in manufacturing, the minerals industries, and railroads. Between 1923 and 1930, the capital expenditures for plant and equipment per \$100 of income originating in these industries fluctuated narrowly. After 1930, capital expenditures fell much more sharply than total income produced. (See table 8.)

TABLE 8.—*Capital Expenditures and Capital Formation in Relation to Income and Employment, 1923-34*

Year	Estimated expenditures for new durable goods ¹				Gross business capital formation per \$100 of total national income ²	Gross capital formation per \$100 of total national income ³
	Manufacturing, mining, and steam railroads		Private producers' plant and equipment, per \$100 of total national income	All plant and equipment (producers', consumers', and public), per \$100 of total national income		
	Per wage earner ⁴	Per \$100 of income				
1923.....	\$339	\$16	\$11	\$31	\$19	\$47
1924.....	316	15	11	31	13	45
1925.....	328	15	11	32	17	46
1926.....	378	16	11	32	17	45
1927.....	344	15	11	32	16	45
1928.....	360	15	11	31	14	44
1929.....	409	17	12	31	19	46
1930.....	358	16	11	28	13	40
1931.....	222	12	9	26	10	36
1932.....	161	12	7	22	3	27
1933.....	150	12	6	19	6	30
1934.....	200	13	7	22	(⁵)	(⁵)

¹ For the expenditure estimates here used, see Board of Governors of the Federal Reserve System, Federal Reserve Bulletin, September 1939, pp. 731-736: Estimated Expenditures for New Durable Goods, 1919-38, by George Terborgh. For the income estimates used throughout the table, see National Bureau of Economic Research, National Income and Capital Formation, 1919-1935 (pp. 62, 63, 67), by Simon Kuznets.

² The expenditure figures include crude-petroleum producing and quarrying; the employment figures exclude these industries. Employment figures in these industries are available only for certain years but employment tended to increase more (or to decline less) than in the group as a whole, and the table therefore somewhat underestimates expenditures per worker in the early years as compared to the middle and later years. Price changes, especially after 1929, affect somewhat the validity of the figures of expenditures per wage earner. If expressed in constant dollar values, the comparative expenditures per wage earner would be significantly larger after 1929 than the figures as shown in the table.

³ The estimates of gross business capital formation, which include repairs and servicing of producers' durable commodities and which take account of business inventories, are from National Bureau of Economic Research, Commodity Flow and Capital Formation, 1919-35 (vol. 1, p. 484), by Simon Kuznets.

⁴ The figures of gross capital formation include, in addition to the figures of gross business capital formation, consumers' durable commodities and public investment. For sources, see footnotes 1 and 3.

⁵ Not available.

There was a somewhat similar trend in the relationship between total national income produced and the capital expenditures for plant and equipment by all private producers. Gross business capital formation is a more comprehensive figure than capital expenditures for plant and equipment. It includes the repairs and servicing of producers' durable commodities and takes account of business inventories. Gross business capital formation per \$100 of aggregate national income was much smaller in 1929 than in 1919 or 1920. During each of the years 1924 to 1928, the amount per \$100 of aggre-

gate national income was below the amount per \$100 for the years 1919 to 1929 as a whole. From 1930 to 1933, gross business capital formation fell off much more sharply than aggregate national income. Substantially the same trends are observable in the relationship between gross capital formation (including consumers' durable commodities and public investment) and aggregate national income.¹⁶

The disuse and dissipation of capital resources parallels the unemployment and demoralization of workers. Much recent progress has been made, however, toward an understanding of both problems. Formerly, opportunities for investment were vastly expanded by rapid population growth, rapid industrial development, and the growing demand abroad for American products. These circumstances have undergone a radical change, and in addition, there has recently been a remarkable development of capital-saving techniques. These new conditions, it is now realized, call for a thorough-going reconsideration of the problems of allocating income to investment and consumption.¹⁷

¹⁶ For sources, see footnotes to table 8.

¹⁷ These problems are obscured and may be temporarily deferred by the emergency employment of men and resources for armaments. They call, nevertheless, for consideration even in the formulating of emergency policies. Three governmental inquiries inaugurated in recent years are particularly important in throwing light on these and related problems. One of these is the study of national income by the Bureau of Foreign and Domestic Commerce of the U. S. Department of Commerce in cooperation with the National Bureau of Economic Research. This work now includes the making of annual estimates of national income produced and national income paid out and monthly estimates of the flow of income. Another series of inquiries was undertaken by the National Resources Planning Board and the agencies that preceded it. These inquiries may be illustrated by the National Resources Committee's publications on Technological Trends and National Policy (Washington, 1937) and The Structure of the American Economy, Part 1, Basic Characteristics (Washington, 1939). The third main type of inquiry is carried on by the Temporary National Economic Committee. Its hearings and reports bearing particularly on the subject include Part 1, Economic Prologue (Washington, 1939); Parts 2 and 3, Patents (Washington, 1939); Part 4 and some of the later volumes, Life Insurance (Washington, 1939 and 1940); Part 9, Savings and Investment (Washington, 1940); and the hearings and reports under way in 1940 on technological change. For a summary of the program of the Temporary National Economic Committee, see Monthly Labor Review, January 1939, pp. 1-15: Basic Problems of the National Economy, by Edwin M. Martin (reprinted as Serial No. R. 865).

HOURS-OF-LABOR LEGISLATION IN THE UNITED STATES

THE effort of the United States to institute a national defense program has created unusual interest in legislation regulating the hours of labor of employees. This article presents a brief survey of hour legislation, Federal and State, existing in this country today.

Federal Legislation

The Federal Government, in the Fair Labor Standards Act of 1938,¹ assumed general jurisdiction over working hours in private employment on work of an interstate character. Previous to that time Federal legislation in the field of wages and hours had been limited to employment under public contracts, on public works, or in interstate transportation.

FAIR LABOR STANDARDS ACT, 1938

This law provides for a minimum wage and maximum workweek for employees engaged in interstate commerce or in the production of goods for interstate commerce. Certain industries are specifically exempt. The minimum-wage provisions are, with limited exceptions, absolute: i. e., employees cannot be paid less than the applicable minimum wage. The provisions for a maximum workweek, however, are flexible. By the provisions of the act the workweek since October 24, 1939, has been limited to 42 hours and on October 24, 1940, a 40-hour week is to become effective. These limitations do not prohibit the worker from working in excess of the prescribed hours, provided he is paid at time and a half for his overtime work. In fact, therefore, the regulation of hours will raise labor costs for hours longer than the maximum; but it does not limit hours as such. The effect on labor cost is such, however, as to remove the competitive advantage of long hours, but not to limit production when there is general pressure on an industry as a whole. It may also be noted that these limitations apply only to the workers and not to the establishment itself, as there is no limitation of any kind on the working hours of the plant or establishment.

PUBLIC CONTRACTS AND PUBLIC WORKS

The so-called Walsh-Healey Public Contracts Act,² passed by Congress in 1936, provides for a basic 8-hour day and 40-hour week on all contracts entered into by the United States or the District of Columbia for the manufacture or furnishing of materials, supplies, etc.,

¹ Supp. V to U. S. Code, 1934, Title 29, secs. 201-219.

² Idem, Title 41, secs. 35-45.

in excess of \$10,000. The act, however, authorizes the Secretary of Labor to permit overtime at one and one-half times the regular rate of pay. The act was recently amended (Public, No. 671, 76th Cong.) so as to authorize the President to suspend the substantive provisions of the law when the public interest so requires but, to date, there has been no suspension of these provisions.

As early as 1892, the Congress of the United States passed a law³ which provided for an 8-hour day for all laborers and mechanics employed on public works of the United States or the District of Columbia. The act was materially strengthened by amendatory legislation of March 3, 1913, which brought the dredging of rivers and harbors of the United States under the operation of the law.

In 1912, Congress also enlarged the scope of the 8-hour law so that it would apply to Government contracts in general.⁴ There are certain specific exceptions to the law. The statute provides that every contract to which the United States is a party, which may require or involve the employment of laborers or mechanics, shall contain a provision that no laborer or mechanic in the employ of the contractor or any subcontractor shall be required or permitted to work more than 8 hours in any one calendar day upon such work. The President was empowered to suspend the 8-hour law in case of national emergency, with pay at the rate of time and a half for all work in excess of 8 hours. The recently enacted National Defense Act (Public, No. 671, 76th Cong.) provides for the suspension of the law prohibiting more than 8 hours' labor in any one day for persons engaged on work covered by Army, Navy, or Coast Guard contracts. This section of the act has been interpreted to include the 8-hour law and the Walsh-Healey Public Contracts Act. However, it should be noted that the act specifically reserves the application of the remaining provisions of the Walsh-Healey Act, including the 40-hour week, to all negotiated contracts. In another act (Public, Act No. 703 76th Cong.) the Congress has provided for the payment of overtime at time and a half for hours worked in excess of the basic 40-hour week for persons employed directly by the War Department in the production of war materials.

INTERSTATE COMMERCE

By an act of 1907,⁵ Congress limited the hours of labor of persons "engaged in or connected with the movement of any train" on interstate lines to 16 a day. The act also limited the hours of labor of telegraph or telephone dispatchers to 9 a day in places operated continuously day and night, and to 13 hours in places operated only during the daytime. On September 3, 1916, the so-called Adamson

³ U. S. Code, 1934, Title 40, secs. 321-322.

⁴ *Idem*, Title 40, secs. 324-326.

⁵ *Idem*, Title 45, secs. 61-64.

Law⁶ was approved, providing a basic 8-hour day for railroad trainmen. The law provides that 8 hours shall be deemed a day's work and the measure of a day's work for the purpose of computing the wages of certain railroad employees. It does not forbid such employees from working more than 8 hours. In general, the regulating of overtime work and stipulations as to the rate of overtime wages are governed by agreements between the unions and the railroads.

State Legislation

LIMITATIONS ON HOURS OF MEN

State legislation regulating the hours of labor of men has been somewhat limited in scope. For the most part, State laws regarding the working hours of men have applied only to those engaged on public works, or in the transportation industry where public safety is directly affected, or in those employments considered particularly dangerous or unhealthy to the workmen. In addition, however, a very few States have limited the hours of labor of men in employments in which the elements of public safety or special hazard to the workers do not seem to apply.

Laws limiting the hours of labor on public works have now been enacted by more than one-half of the States,⁷ the District of Columbia, and the Territories of Alaska, Hawaii, Puerto Rico, and the Philippines. These laws provide for an 8-hour day, and cover all laborers, workmen, and mechanics. In Delaware the law regulating the hours of labor on public works is applicable only to the city of Wilmington, while the Maryland law applies to the cities of Baltimore and Cumberland. In Missouri the hours of labor on public works are limited to cities of the second class. The Louisiana act applies only to city work. The majority of the laws in this field permit overtime work in case of emergency, in time of war, or for the protection of property or human life. In some instances extra compensation is to be paid for overtime work.

Approximately two-thirds of the States have adopted hour laws covering employees engaged in transportation. However, these laws are effective only on railroads engaged exclusively in intrastate commerce. In this type of law the element of public safety is involved. Where these laws concern an employee engaged directly in the operation of a train, the majority of the States make 16 hours the maximum limit for a day's work, to be followed by 8 or 10 consecutive hours of rest. A daily maximum of 13 hours is provided in Florida and Georgia, while Minnesota and Oregon limit the daily hours to 14, and Ohio provides for a 15-hour day. The States of Arkansas, Cali-

⁶ U. S. Code, 1934, Title 45, secs. 65, 66.

⁷ Arizona, California, Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Minnesota, Missouri, Montana, Nevada, New Jersey, New Mexico, New York, Ohio, Oklahoma, Oregon, Texas, Utah, Washington, West Virginia, Wisconsin, Wyoming.

ifornia, Connecticut, Maryland, Nebraska, Nevada, New York, Oregon, and West Virginia regulate the hours of labor of railroad telegraph or telephone dispatchers, usually limiting the hours to 8 a day. In cases where the offices are open only in the daytime, hours are usually limited to 12 or 13 a day, to be followed by a specified number of hours of rest.

As a result of the increasing use of motor vehicles in commercial transportation, most of the States now have adopted legislation limiting the working hours of bus and truck drivers. These laws fix a maximum number of hours of continuous work, generally 10 or 12, and require a period of rest before resumption of duty.

In private employments where public safety is not directly concerned, hour laws for men are limited principally to workers in mines, smelters, and related industries. At the present time over a dozen States have enacted laws regulating the hours of labor of some or all classes of work in these industries. The majority of the laws limit the hours to 8 a day; however, the law of Maryland establishes a 10-hour day for employees in mines in certain counties, and Washington provides for a daily limit of 10 hours for persons employed in transporting men in and out of the mines. The States of Louisiana, Maine, New Jersey, and New York have enacted laws regulating the hours of labor of employees working under compressed air, and similar limitations have been established by the respective Labor Departments in Arizona, Indiana, Massachusetts, Pennsylvania, and Wisconsin. Such laws provide a schedule showing the pressure, shifts, and intervals of rest between shifts for each 24-hour period, and in all cases the hours worked must be in strict conformance to this schedule, thereby prohibiting any overtime work.

In recent years a number of States have enacted hour laws for men in certain other private employments. Arizona has a law providing for an 8-hour day and a 48-hour week for employees working in laundry establishments. The same State has established an 8-hour day for employees of electric light and power plants. Georgia and Maryland have placed a 10-hour limit on the working day of employees of cotton and woolen manufacturing establishments. In Oregon a 10-hour law has been adopted for persons employed in any mill, factory, or manufacturing establishment, while in Mississippi the same limitation has been placed on the working hours of employees in mills, canneries, workshops, factories, or manufacturing establishments. An 8-hour day for employees of cement-manufacturing plants has been established in Arizona, Colorado, Montana, and Nevada, and, in addition the 8-hour limitation is applicable to plaster-manufacturing plants in Colorado and Nevada. The work of employees of saw and planing mills is limited to 10 hours a day in Arkansas. The Legislature of Montana has enacted a law providing for

an 8-hour day and 48-hour week for employees of retail stores in cities having a population of 2,500 or over. In 1939, the same limitation was placed on the working hours of employees of restaurants, etc. In 1937, North Carolina enacted a 10-hour law for all employments; but its effectiveness is somewhat limited by the inclusion of a large number of excepted occupations. The majority of these laws allow overtime work only in cases of emergency where life or property is in imminent danger.

Laws regulating the hours of labor generally exempt agricultural and domestic labor. However, in 1937 the Legislature of Washington passed a law limiting the hours of labor of domestic employees to 60 a week. The Puerto Rico law, passed in 1935, regulates the hours of labor of employees in agriculture as well as in commercial and industrial establishments.

LIMITATIONS ON HOURS OF WOMEN

In contrast with the limited regulation of hours of labor for men, there are extensive regulations affecting the hours of labor of woman workers. Only four States (Alabama, Florida, Iowa, and West Virginia) have failed to adopt some legislation fixing such hours. The law of Indiana prohibits only the employment of women at night in factories, and does not otherwise limit working hours.

Approximately one-half of the States,⁸ the District of Columbia and the Territories of Puerto Rico and the Philippines have adopted laws limiting the working hours of women to 8 a day. Twenty States⁹ have enacted 9-hour laws, while 13 States¹⁰ fix the daily hours of labor at 10. In Oregon the law fixing maximum hours at 10 a day and 60 a week has been superseded to a great extent by orders of the Oregon State Welfare Commission which have provided for an 8-hour day and a 44-hour week for women in practically all industries. The number of industries or occupations included in these laws varies greatly and the weekly hour limitations are also far from uniform. An order of the Utah Industrial Commission, in 1938, established a 7-hour day, 42½-hour week for women employed in retail trade in that State. North Dakota limits the working hours of women to 8½ a day in specified industries and occupations, and New Hampshire permits a 10¼-hour day and 54-hour week in employment other than manufacturing. A 10½-hour day and 57-hour week for women has been established in Tennessee, while Texas provides for an 11-hour day and 54-hour week in cleaning and pressing establishments. The In-

⁸ Arizona, California, Colorado, Connecticut, Illinois, Kansas, Louisiana, Montana, Nevada, New Mexico, New York, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Utah, Washington, Wyoming.

⁹ Arkansas, Connecticut, Idaho, Kansas, Louisiana, Maine, Massachusetts, Michigan, Missouri, Nebraska, New Mexico, North Carolina, North Dakota, Oklahoma, Oregon, Rhode Island, Texas, Vermont, Virginia, Wisconsin.

¹⁰ Delaware, Georgia, Kentucky, Maryland, Mississippi, New Hampshire, New Jersey, North Carolina, Oklahoma, Oregon, Pennsylvania, South Dakota, Wisconsin.

dustrial Welfare Commission of Oklahoma has ordered an 11-hour day and a 62-hour week for woman employees in the retail drug industry, while South Carolina limits the hours of labor in mercantile establishments to 12 a day and 60 a week.

In a number of the States the laws contain some provision for overtime work. These provisions, for the most part, allow overtime during the seasonal rushes in fruit and vegetable canneries, or the week before Christmas in retail stores. Overtime is also permitted in emergencies and to make up time lost because of stoppage of machinery. Most laws limit the amount of overtime and in practically all of the States where overtime is permitted the laws provide for special overtime rates.

REGULATION OF NIGHT WORK

Some 18 States prohibit night work for women in certain industries or occupations. However, in no case is there an all-inclusive night-work prohibition. For example, the law of Indiana covers manufacturing only, that of Ohio is applicable to ticket sellers only, and that of Washington to elevator operators only. South Carolina prohibits the employment of women after 10 p. m. in mercantile establishments. There is no statute in Oregon, but the Industrial Commission by administrative order forbids night work in certain occupations.

The most common period during which night work is prohibited is from 10 p. m. to 6 a. m., such regulation existing in California, Connecticut, Delaware, Indiana, Massachusetts, New York, Ohio, Pennsylvania, and the territory of Puerto Rico. The Oregon Welfare Commission, however, has issued orders prohibiting women from working in needlecraft, laundry, cleaning, and dyeing occupations between the hours of 6:30 p. m. and 7:30 a. m. In Nebraska women may not be employed in manufacturing, mechanical, or mercantile establishments, laundries, hotels, restaurants, or offices in certain cities from 12:30 a. m. to 6 a. m. North Dakota, by order of the Minimum Wage Department, prohibits work in laundries before 6 a. m. In Massachusetts, the law prohibiting the employment of women in the manufacture of textile goods or leather from 6 p. m. to 6 a. m. has been suspended by successive acts of the legislature which authorize the Commissioner of Labor and Industries to permit the employment of women, over 21, until 10 p. m. in textile manufacturing. Maryland limits the hours that a woman may work at night to 8 in certain occupations, if any work is performed between 10 p. m. and 6 a. m.; while New Hampshire limits the daily hours of women performing manual or mechanical labor to 8 if any work is performed between 8 p. m. and 6 a. m. on more than 2 nights a week.

No prohibition of night work for men exists anywhere in the United States.

TWO YEARS OF THE FAIR LABOR STANDARDS ACT ¹

WHEN the 40-hour week for workers engaged in interstate commerce and the production of goods for interstate commerce is substituted for the existing 42-hour maximum on October 24, 1940, one of the two major objectives of the Fair Labor Standards Act of 1938 will be reached. Beginning at that time all hours worked in excess of 40 in any week by employees subject to the terms of this law must be paid for at the rate of not less than one and one-half times the regular hourly rate. There is no limit on the amount of overtime which may be worked, provided the prescribed overtime rate of wages is paid.

Employers are not required to meet the second objective, namely a 40-cent minimum hourly wage rate (or a lower rate, not less than 30 cents, prescribed by the Administrator), until 1945, unless such rates are established by him, in accordance with wage-order procedure. Although the present statutory minimum wage for employees benefiting from the general provisions of the law is still 30 cents an hour, higher minima had already been established on July 31, 1940, by order of the Administrator in 10 important industries—apparel, hat, hosiery, knitted outerwear, knitted underwear, millinery, paper, shoe, textile, and wool—after due investigation and on the basis of recommendations by special industry committees. In addition, 4 industry committees had recommended wages above 30 cents an hour but these recommendations had not been acted on by the Administrator on that date. Subsequently a wage order was issued for one of these 4 industries—leather.

Coverage of Act

GENERAL PROVISIONS

In a survey made by the Bureau of Labor Statistics in April 1939 it was estimated that the Fair Labor Standards Act covered 12,652,700 persons. At that time it was also estimated that 690,000 workers in Territorial United States and Puerto Rico would benefit from the automatic increase in hourly wages to 30 cents on October 24, 1939. It was further estimated that 2,382,500 employees in continental United States were working more than 42 hours a week, the maximum permissible without overtime payment after October 24, 1939, and that nearly 70 percent of these (that is, 1,663,500) were not being paid at overtime rates for time worked in excess of 42 hours. No estimate has been made of the number of persons who will be affected by the reduction in the statutory workweek from 42 to 40 hours on October 24, 1940. The coverage of the law and the numbers of workers whose wages were lower and hours were longer than the statutory limits

¹ This article is based on publications of the Wage and Hour Division, and on information furnished to the Bureau of Labor Statistics by that Division.

effective in the fall of 1939 are shown in table 1, as estimated in the survey noted above.

TABLE 1.—Estimated Employee Coverage of Fair Labor Standards Act, Based on Conditions in April 1939

State	Total employees covered	Number receiving under 30 cents an hour	Number working over 42 hours per week with-out payment for overtime	State	Total employees covered	Number receiving under 30 cents an hour	Number working over 42 hours per week with-out payment for overtime
United States.....	12,652,700	690,000	1,663,500	Nebraska.....	64,200	3,700	14,400
Alabama.....	173,300	38,200	38,000	Nevada.....	10,100	100	1,100
Arizona.....	25,300	400	1,100	New Hampshire.....	63,600	5,900	10,300
Arkansas.....	66,600	17,100	14,500	New Jersey.....	569,100	16,600	53,700
California.....	505,800	4,300	65,400	New Mexico.....	25,300	600	1,200
Colorado.....	69,800	2,100	9,600	New York.....	1,516,100	29,400	145,100
Connecticut.....	314,700	5,600	31,200	North Carolina.....	322,200	60,600	56,000
Delaware.....	28,900	1,800	5,800	North Dakota.....	18,800	400	3,900
District of Columbia.....	31,300	700	3,400	Ohio.....	848,400	12,900	109,500
Florida.....	102,700	23,800	23,800	Oklahoma.....	104,600	5,700	11,800
Georgia.....	215,000	57,000	46,700	Oregon.....	95,000	900	12,300
Idaho.....	28,000	1,400	6,600	Pennsylvania.....	1,280,100	36,300	123,100
Illinois.....	975,900	15,300	140,800	Rhode Island.....	125,600	2,600	16,600
Indiana.....	370,700	4,500	49,400	South Carolina.....	156,200	41,400	19,600
Iowa.....	141,000	5,800	27,600	South Dakota.....	22,000	1,500	4,600
Kansas.....	110,400	4,200	16,100	Tennessee.....	212,000	43,200	49,500
Kentucky.....	181,500	13,500	22,200	Texas.....	330,000	35,500	66,500
Louisiana.....	136,500	22,600	22,300	Utah.....	32,200	600	7,700
Maine.....	90,000	4,600	11,800	Vermont.....	36,400	1,900	5,800
Maryland.....	211,300	14,000	25,300	Virginia.....	213,400	26,600	30,400
Massachusetts.....	643,200	19,800	101,100	Washington.....	144,900	700	10,200
Michigan.....	729,700	11,900	82,900	West Virginia.....	216,900	1,900	14,600
Minnesota.....	175,200	1,800	18,400	Wisconsin.....	297,700	5,500	45,800
Mississippi.....	71,400	26,000	19,100	Wyoming.....	20,700	200	3,800
Missouri.....	332,400	18,800	56,400	Puerto Rico.....	104,100	40,000	-----
Montana.....	40,500	100	4,500				

¹ Includes 41,000 covered employees of mail-order houses. These employees are excluded from the State totals. The United States total also includes a roughly estimated total of 11,000 covered employees in the Territories of Alaska and Hawaii.

² Excludes home workers, estimated at about 135,000 in continental United States and 60,000 in Puerto Rico; also excludes longshoremen and employees of mail-order houses.

³ Excludes home workers, longshoremen, covered employees in mail-order houses and in the Territories.

More than three-fifths of the workers subject to the terms of the act were engaged in manufacturing industries. Others were employed in mining, quarrying, and crude-petroleum production, on railroads and motor carriers, or by public utilities, wholesale trade, mail-order houses, and insurance and brokerage firms. State estimates, as shown in table 1, of employees covered and of those affected by the wage and hour provisions of the law indicated that when the 1939 changes in working standards were made there would be marked effects in 36 States. The remaining 12 States had relatively small numbers of employees who were directly affected. These include Vermont, Delaware, the Dakotas, and the Mountain States, which were estimated as having about 3 percent of the total number of employees covered in the United States as a whole.

In general, there was a sharp difference in coverage between wage earners and salaried workers. In manufacturing about 63 percent

and in the extractive industries about 60 percent of the salaried workers were estimated to be subject to the act. Among wage earners in both the manufacturing and extractive industries it was estimated that all but 5 or 6 percent were covered. However, it should be noted that these tabulations are based on employer estimates as to their coverage under the law, before definitive decisions as to coverage had been made in the courts.

The lowest ratios of wage earners subject to the act occurred in wholesale trade, insurance and brokerage, motor carriers, and electric light and power.

The proportion of wage earners subject to the act was, of course, not the same in every manufacturing industry. Of 25 industries for which reasonably accurate totals could be constructed, the lowest reported coverage (70 percent) was in bakeries (exclusive of small retail bakers) and the next lowest in the printing industries (91-92 percent). Fifteen of the industries reported 95 to 98 percent of the wage earners as subject to the act.

Reports from establishments manufacturing confectionery, ice cream, beverages, and shirts and collars indicated about the same proportion of workers subject to the act as in the case of bakeries. Otherwise, it appeared that more than 90 percent of the wage earners were covered in each of the several manufacturing industries.

Wage Orders

In the main, the wage orders issued by the Administrator providing minimum wage rates above the statutory minimum have been concerned with various branches of clothing manufacture and textiles. One of the large groups of workers whose wages have been increased above the 30-cent hourly rate as a result of a wage order is in the so-called apparel industries. It has been estimated that this order resulted in a wage increase for 166,000 employees. Other large groups of workers who benefited under individual wage orders are those engaged in textile manufacture, numbering an estimated 179,700; and those in the shoe industry, totaling 60,100.

Minimum rates of pay under these orders range from 32½ cents in the seamless hosiery, textile industries, and certain branches of the apparel industry to 40 cents an hour for workers engaged in the manufacture of paper, full-fashioned hosiery, hats, millinery, and certain other kinds of apparel. The terms of the 10 minimum wage orders are given in table 2, by industry and effective date. Also shown are the number of wage earners in the respective industries and the number estimated to be directly affected by the orders. The number of employees in these industries total over 2,100,000 and the number directly affected by the minimum wages established exceed 500,000.

TABLE 2.—Minimum Wage Orders by Industry, Effective Date, Wage Rates and Coverage, as of July 31, 1940

Industry	Date effective	Minimum hourly wage rate	Coverage	
			Wage earners in industry	Wage earners directly affected
		<i>Cents</i>		
Hosiery			150, 000	47, 400
Seamless	Sept. 18, 1939	32½	(1)	(1)
Full-fashioned	do	40	(1)	(1)
Textiles	Oct. 24, 1939	32½	668, 000	179, 700
Millinery	Jan. 15, 1940	40	22, 000	3, 600
Shoes	Apr. 29, 1940	35	234, 000	60, 100
Knitted underwear and commercial knitting	May 6, 1940	33½	62, 000	17, 000
Woolen	June 17, 1940	36	159, 000	12, 500
Hats	July 1, 1940	40	25, 000	5, 500
Straw and harvest hats	do	35	(1)	(1)
Straw and harvest hats, Puerto Rico	do	30	(1)	(1)
Knitted underwear	do	35	26, 000	8, 500
Apparel ¹			655, 000	166, 000
Men's and boys' clothing	July 15, 1940	40		
Sportswear and other odd outerwear				
Leather and sheep-lined garments				
Rainwear				
Cloaks, suits, and separate skirts				
Caps and cloth hats	do	37½		
Belts				
Single pants and breeches other than those of 100-percent cotton fabric	do	37½		
Dresses	do	35		
Blouses, shirtwaist, neckwear, and scarfs				
Corsets and allied garments				
Underwear, nightwear, and negligees made of woven fabrics				
Infants and children's outerwear				
Robes				
Washable service apparel				
Covered buttons and buckles				
Garters, suspenders, and arm bands				
Ladies' handbags				
Artificial flowers and feathers	do	32½		
Men's neckwear and scarfs				
Gloves and mittens, other than work gloves and mittens				
Single pants of 100-percent cotton fabric, overalls, coveralls, and work shirts				
Dress shirts, collars, and sleeping wear				
Men's and boys' underwear of woven fabric	Sept. 16, 1940	40	129, 000	8, 300
Work gloves and mittens				
Handkerchiefs				
Paper				

¹ No information on coverage in separate branches of industry.² Puerto Rico exempt.³ Does not include 10 branches of apparel industry, employing approximately 56,000 workers, for which data are not available.

In establishing wages above the statutory minimum of 30 cents an hour, an exception was made for workers in Puerto Rico. Thus, Puerto Rican employers were allowed to continue the 30-cent minimum hourly rate (instead of the prescribed 35-cent minimum) to workers making straw and harvest hats, and were also not required to make pay increases above the 30-cent level to employees engaged in the manufacture of apparel. Later, under a resolution of Congress (No. 88, ch. 432, 76th Cong., 3d sess.) it was provided that no industry committee may recommend hourly wage rates above the statutory minimum for workers in Puerto Rico and the Virgin Islands, but the Administrator may appoint a special committee or committees to make recommendations for a rate which may be below the

statutory limit, provided such wage rate does not give employers a competitive advantage over employers in the United States. Also under this resolution, workers in these Territories were exempted from previous wage orders of the Administrator.

The special committees for the 10 above-mentioned industries for which wage orders have been issued either have been or will be disbanded in accordance with established procedure. As need arises they may be reconvened to survey conditions in the respective industries and to recommend further changes in wages (as long as they are between 30 and 40 cents an hour).

Table 3 lists the four industries for which industry committees have recommended minimum hourly wage rates higher than the statutory minimum of 30 cents, but which had not been adopted by the Administrator up to July 31, 1940.

TABLE 3.—*Minimum Wages Recommended by Industry Committees, as of July 31, 1940*

Industry	Minimum hourly wage rate (cents)	Coverage	
		Wage earners in industry	Percent of total wage earners directly affected
Carpet and rug.....	35 and 40	31,000	3.5
Leather ¹	40	50,000	6.0
Luggage and leather products.....	35	18,000	27.2
Railroad.....	33 and 36	1,094,188	6.0

¹ Wage order for the leather industry issued on Aug. 14, 1940.

Early Experience With Wage and Hour Regulation

The Fair Labor Standards Act was adopted in 1938 to insure a living wage for the lowest-paid workers in industry and to protect employers paying fair wages from competition with employers who fail to establish decent standards of pay in their plants and shops. Because of constitutional limitations, the law was necessarily restricted in coverage to workers engaged in interstate commerce or the production of goods for interstate commerce. This law, although in many respects unique in the United States, was a more or less logical development of earlier legislation and practices in the field of governmental control of wages and working hours in private industry. As early as 1917-18, the National War Labor Board, in passing upon more than 1,000 cases of industrial disputes submitted to it, followed very generally the practice of fixing a minimum hourly rate of 40 cents and an 8-hour 6-day week, with extra pay for overtime. The Board's decisions were, of course, applicable only to the cases being passed upon and its findings were not binding except on the cases jointly submitted by both sides. Nevertheless, so great was the authority of the Board and so influential were its opinions and decisions, that

at the close of the war, the 8-hour day and the 40-cent minimum wage were the accepted practice in the major industries.

Similar results occurred in the administration of the National Industrial Recovery Act. Under this act, wage and hour standards were to be set up by individual industries, with due recognition to the differences existing in different industries. In practice, however, the determination of minimum standards in one industry was bound to influence those in others. The result was that in many of the industry codes the minimum hourly rate was also fixed at 40 cents; under others the minimum was higher or lower. The 40-hour week was usual under code provisions.

Administration of Fair Labor Standards Act

A special division—the Wage and Hour Division of the United States Department of Labor—administers the wage and hour law, with the exception of the child-labor provisions which, as later shown, are administered by the Children's Bureau. In addition to the central office maintained in Washington, D. C., there are 14 regional offices in the following cities: Boston, New York, Philadelphia, Richmond, Charlotte, Atlanta, Birmingham, Nashville, Cleveland, Chicago, Minneapolis, Kansas City (Mo.), Dallas, and San Francisco. A territorial office operates in Puerto Rico.

The Wage and Hour Division's functions are to issue regulations under the terms of the act, to determine the exemptions that may be granted under its terms and to grant them, and to enforce the provisions of the law. Experience under the act and some of the more important administrative steps taken up to the end of July are discussed in this section.

Interpretations are also issued by the Administrator but with the understanding that the courts alone are able to render final decisions as to the intent of Congress in framing the provisions of this law. Pending court decisions as to the meaning of the terms, however, the law is being enforced in accordance with the best judgment of the Division as expressed in interpretations and regulations. The Administrator issues wage orders after study of the recommendations of industry committees. Such orders also are subject to review by the courts.

Exemptions

As the act applies only to workers engaged in interstate commerce or in the production of goods for interstate commerce, it does not cover those employees in a given plant whose work is of an intrastate character, even though other employees (possibly doing the same kind of work) in the same plant are subject to the terms of the law.

Workers in the Philippine Islands are not specifically mentioned as covered, and it is considered that they are excluded.

Complete exemption, from the wage and hour provisions is granted under section 13 of the law to (1) employees employed in a bona fide executive, administrative, professional, or local retailing capacity, or in the capacity of outside salesmen, (2) any employee engaged in any retail or service establishment the greater part of whose selling or servicing is in intrastate commerce, (3) seamen, (4) any employee of a carrier by air subject to the provisions of title II of the Railway Labor Act, (5) any employee employed in the catching, taking, harvesting, cultivating, or farming or in the processing or marketing of any kind of fish, shellfish, crustacea, sponges, seaweeds, or other aquatic forms of animal and vegetable life, etc., (6) any employee employed in connection with the publication of any weekly or semi-weekly newspaper with a circulation of less than 3,000, the major part of which circulation is within the county where printed and published, and (7) any switchboard operator employed in a public telephone exchange which has fewer than 500 stations. Under section 3, employees of the United States or any State or political subdivision of a State are exempted.

Complete exemptions from the hours provisions only are also made under section 13 for employees subject to the jurisdiction of the Interstate Commerce Commission. Partial exemption from the hours provisions is given under the terms of section 7 for seasonal industries. An exemption also applies where employers provide a guaranteed annual wage for their employees or limit hours to 1,000 in a 6-month period as a result of a collective-bargaining agreement.

Special attention is given to employment in agriculture and the handling, preparing, or processing of agricultural commodities. Under section 13 "agriculture" is exempted, this exemption, of course, applying to farming operations as defined in the act. Further provision is made in section 13 for the exclusion from both wage and hour limitations of individuals employed within the "area of production" in preparing for market agricultural or horticultural commodities in the raw or natural state, in canning, cheese making, etc. By section 7, employees are granted a total or partial exemption from the hours provisions for certain operations performed upon agricultural or horticultural commodities. The exemption is complete, for example, in the first processing of dairy products. This same section makes it possible for employees engaged in the first processing of such products as fruits and vegetables and the handling of poultry and livestock to work without limitations on hours for 14 workweeks in the calendar year.

Finally, under section 14, the Administrator is authorized to establish wage rates lower than the minimum prescribed by law for ap-

prentices, handicapped workers, learners, and such messengers as may be engaged exclusively in delivering letters or messages. This may be done only to "the extent necessary to prevent curtailment of opportunities for employment."

Interpretations and Regulations

In administering the Fair Labor Standards Act, the Wage and Hour Division interprets the terms of the law for employers and employees who are covered and issues regulations. A number of interpretive bulletins and regulations have been prepared, some of which were issued after hearings on the questions involved. These guides to persons affected by the operation of the act are still in process of change as additional facts are brought to light.

APPRENTICES

The Administrator may provide for the employment of apprentices at rates below the applicable minimum, to the extent necessary to prevent curtailment of employment. An apprentice is defined by the regulations as a person 16 years old or over, covered by a written apprenticeship agreement. Before applying for an apprenticeship certificate the employer must obtain official approval of the apprenticeship agreement under which the apprentice is to be trained. Such approval may be given either by the State apprenticeship council or the corresponding apprenticeship authority, provided that body has been approved by the Federal Committee on Apprenticeship (United States Department of Labor). If no approved apprenticeship council or authority exists in the State, approval of the apprenticeship agreement must be obtained from the Federal Committee on Apprenticeship. In requiring that State bodies must be approved, the purpose is to insure that the standards of apprenticeship shall in no case be lower than those established by the Federal Committee on Apprenticeship.

An application to permit employment at rates below the minimum must be filed on an official form furnished by the Division. If approved, a certificate is issued. Each agreement must specify that (1) the employee is to have not less than 4,000 hours of reasonably continuous employment, under an approved schedule of work experience throughout the period of apprenticeship, and (2) the apprentice will have at least 144 hours of supplemental instruction each year in classes on subjects related to the trade in which he is engaged.

A relatively small number of apprenticeship certificates has been issued. The reason for this is that, in most cases, entrance rates of apprentices are higher than the statutory minimum under the wage and hour law, making it unnecessary for their employers to obtain certificates.

HANDICAPPED WORKERS

Persons whose earning capacity is impaired by age or physical or mental deficiency or injury may be granted certificates to work at rates of pay at not less than 75 percent of the minimum rate under the wage and hour law, except under most unusual circumstances. Applications are made on special forms provided by the Wage and Hour Division and must be signed by the employer and the employee. The nature of the incapacity must be explained in detail and a doctor's certificate is required in all cases where the handicap is not obvious. Inexperienced or slow workers may not be placed in this class unless otherwise handicapped.

A special body appointed by the Administrator—the Committee on Sheltered Workshops—studied conditions of handicapped clients in non-profit-making charitable institutions. It recommended that the handicapped clients be permitted to work at less pay than the minimum rate under the law. This does not apply to nonhandicapped clients in the same institutions. At the same time it was stated that arrangements must be avoided which constitute an unfair method of competition in interstate commerce or which tend to spread or perpetuate substandard wage levels.

Under the existing regulations, sheltered workshops are to send monthly reports to the Administrator specifying the amount of cash wages paid to each handicapped worker per week, stating the estimated cost of his lodging and meals, and giving a statement of the payment of funds, if any, received by the shop from any source for service maintenance, care, or wages of the worker. Wage rates for such workers are set on the basis of the reports from these sheltered workshops.

LEARNERS

Applications for employment of learners at lower rates than those applicable under section 6 of the act may be made by an employer or a group of employers. Cases are handled on an industry or individual basis. Applications must give specific information reflecting the need of employers for learners at subminimum wage rates, the availability of experienced workers, etc. Hearings may be required and are held where the learner problem is considered on an industry-wide basis. Where it is not feasible to call a public hearing, the individual applications are considered on their merits. A number of certificates have been issued, to cover such cases. In general, if a lower wage is found necessary to prevent curtailment of work opportunities, the Administrator will permit employment of learners in the industry under special certificates and at a lower wage. Decisions are subject to review by the Administrator.

At the end of July public hearings had been held on the learner question in 10 industries. After an industry hearing a finding is

made, which sets forth the terms and conditions upon the basis of which certificates may be issued in that industry.

SEASONAL INDUSTRIES

Hours limitations have been relaxed by the Administrator in 20 industries pursuant to section 7 (b) (3) of the law, which provides a limited exemption for employees in industries "found by the Administrator to be of a seasonal nature." In seasonal industries employers may continue to work their employees 12 hours a day, or 56 hours in any workweek, for 14 weeks in a calendar year before payment of at least one and one-half the regular rate of wages is required to be paid to employees.

GUARANTEED ANNUAL WAGE

Interpretation of the provisions of the Fair Labor Standards Act, governing the regulation of working time of workers who are employed on an annual basis by the terms of a collective-bargaining agreement between a certified union and an employer, has opened the way for growth of the policy of guaranteed annual wages in industry. Employees under such agreement may work up to 12 hours a day and 56 hours a week without payment of overtime, provided they do not work over 2,000 hours within a 12-month period. Employment on an annual basis means that the employee is guaranteed a fixed annual wage or continuous employment for a year.

Section 7 (b) (2) deals with cases in which employment is guaranteed on an annual basis. The intent of Congress is interpreted by the Administrator to have been to encourage the system of a guaranteed annual wage in order to regularize and stabilize employment and income. The limitation of 2,000 hours is upon the number of hours worked and not upon the hours paid for. If an employer pays his employees for 2,080 hours during the year, giving them 2 weeks' vacation with pay, the actual working year is 2,000 hours and the 2,000-hour limitation is satisfied.

In enacting section 7 (b) (1), allowing a similar relaxation in the case of collective-bargaining agreements which limit the hours of any individual to not more than 1,000 in 26 weeks, the Administrator believes Congress intended to meet the exceptional employment situation in mining and lumber camps, where work in excess of the prescribed number of hours per week is carried on continuously for some months, followed by protracted periods of inactivity. This section does not guarantee continuous employment or a fixed wage to workers in such employment. Contracts entered may be yearly agreements, but they provide only that no employee shall be worked more than 1,000 hours in 26 consecutive weeks. The limitation is on number of hours worked. Thus an employer who pays his employees for 1,040 hours in a 26-week consecutive period, but who gives them

a week's vacation with pay and allows them to work only 1,000 hours, satisfies the 1,000-hour limitation.

The Administrator states further that if an employer works his employees in excess of the prescribed limits as to hours under either of the two sections of the law here dealt with, he must pay them one and one-half times their regular hourly rate of pay for all hours worked in excess of the specified hours in any workweek. Even when sections 7 (b) (1) and 7 (b) (2) are properly invoked as the basis for exceptions from the overtime provisions of the act, it is required that an employee hired pursuant to a collective labor agreement which meets the requirements must receive the overtime rate of pay (one and one-half times the regular hourly rate) for time worked in excess of 12 hours in any workday or 56 hours in any workweek. Cases under sections 7 (b) (1) and 7 (b) (2) and seasonal exemptions under section 7 (b) (3) are the only instances where the law fixes a limit to the workday over which overtime payment is required.

RECORD KEEPING

The regulations of the Wage and Hour Division relating to record keeping by employers under the Fair Labor Standards Act were amended by an order issued on June 4, 1940. Employers are required to maintain records showing the age, hours worked, wages paid, etc., for each employee. According to the terms of the previous regulations, if these detailed records were not kept at the place of employment, an abbreviated statement was required to be made up and kept there. The abbreviated record is dispensed with under the new regulations, on condition that the basic record is produced at the place of employment, in every instance, within 72 hours after notice from an inspector acting under the wage and hour law.

This modification is in conformity with the Administrator's policy of easing technical requirements whenever possible without jeopardizing the rights of the employees involved, or without unreasonably increasing or delaying the work of the inspectors and field force engaged in administering the legislation. State laws on record keeping are not affected by these regulations.

Employers who have collective agreements under sections 7 (b) (1) and (2) with their employees must keep and preserve a copy of each agreement, and must report and file a copy of each with the Administrator within 30 days after it has been made. The same applies with respect to amendments or additions and to agreements or amendments made prior to April 25, 1939. A record is also required to be kept showing each worker employed pursuant to the agreement and each amendment thereto. Reporting and filing an agreement does not mean that the agreement is a collective-bargaining agreement providing an annual wage as defined under the wage and hour law.

Child Labor

The child-labor provisions of the Fair Labor Standards Act are administered by the Children's Bureau. Under the terms of the legislation the minimum age for employment in all occupations is 16, with the exception of (1) children working for their parents in nonmining or nonmanufacturing occupations; (2) children between 14 and 16 in nonmining or nonmanufacturing occupations outside school hours and under conditions held not to interfere with their health and well-being, and (3) minors between 16 and 18 years of age in occupations determined by the Children's Bureau to be especially hazardous or detrimental to their welfare, to which an 18-year minimum applies.

If the employer has on file an unexpired certificate issued in accordance with the Bureau's regulations, showing that the minor meets the age requirement for employment in the particular occupation, he is protected from unwitting violation of the statute. An employer should have age certificates for minors in his employ who are 16 or 17 years old if employed on ordinary tasks and 18 or 19 years if engaged in occupations which have been by order declared hazardous.

Under regulations of the Bureau, provision is made for Federal certificates of age, and for the acceptance as proof of age, under the act, of State employment or age certificates, provided the State issuing system meets certain standards. Federal certificates of age are being issued in 4 States with the assistance and cooperation of State and local officials. Certificates of 42 States and the District of Columbia and Hawaii have been declared acceptable up to June 30, 1941, as proof of age under the act.

An occupation may not be declared hazardous to minors until a study has been made, conferences have been held with members of the industry and others, and public hearings have been held. An order must be made on the basis of the findings, and it may be revised if indicated.

Enforcement

In the early period of operation the Wage and Hour Division was principally occupied with the interpretation of the provisions of the law and the issuance of regulations formulating policy and enforcement procedure. Now that the administrative ground work has been laid, the enforcement of the legislation has become the major task. A trained inspection staff is constantly in the field investigating complaints, visiting plants, and developing an educational program in industry.

On June 30, 1940, about 6,400 inspections had been completed, of which nearly 4,700 had been closed. In about 3,400 a settlement was reached; in 700 no violation was found; and in 600 no employees were covered. Wage restitutions were found to be due, totaling over

\$5,000,000, of which more than \$2,000,000 had already been paid. The average amount of the restitution was \$24 per employee.

Approximately 42,000 establishments had been complained against; 32,000 complaint inspections were required; and 26,000 complaint inspections were pending completion on June 30. In addition to the cases closed, almost 1,800 completed case inspections were pending final action.

Legal actions completed totaled 447, of which 370 were civil and 77 criminal cases.

Special enforcement problems arise from the provisions for handicapped workers and learners and by reason of the presence of home workers in certain States. Nearly 7,700 applications for exemption had been filed at the close of June. Final action had been taken on over 6,500 of these and exemption certificates had been issued for 3,952 handicapped workers. The applications for learners' exemptions numbered about 2,000 on June 30, and final action had been taken on approximately 1,900; such applications are made by the employer for a group of workers and therefore the workers involved covered many more than these figures indicate. In order to insure that there shall be no abuse under the wage and hour provisions among home workers, special record-keeping blanks are required to be kept.

The Wage and Hour Division has sought to establish close working relationships with State labor departments in administering and enforcing this law. In cooperation with the Children's Bureau, the Division of Public Contracts, and the Division of Labor Standards, the Wage and Hour Division is developing programs of cooperation with State agencies which administer State wage, hour, and child-labor legislation to reduce duplication of inspection and to provide for exchange of information.

Under authority granted to the Administrator and the Chief of the Children's Bureau, agreements have been made with three States and the District of Columbia to utilize their inspection staffs and reimburse the State agency for the cost of such service. The three States—North Carolina, Connecticut, and Minnesota—are in different sections of the country and it is believed this experience will afford an excellent opportunity to both Federal and State governments to ascertain the effectiveness of using one staff to inspect for compliance with State and Federal labor laws.

National Defense Policies

STANDARDS FOR EMPLOYMENT OF WOMEN IN DEFENSE PROGRAM

THE expansion of defense industries now in progress will, if experience follows that in the first World War, result in a sharp increase of woman workers in these industries and the employment of women in skilled crafts which are practically closed to women in peace times. In order that the participation of woman workers in the defense program may be most efficient, the United States Women's Bureau, in cooperation with the Labor Advisory Committee on Standards for the Employment of Women in the Defense Program, representing eight large union groups,¹ has prepared a report on general standards for such employment of women.² The report states that for some of the particular defense industries, further provisions are also essential and that continual investigation and consultation will be necessary.

The following factors are stated to be of the greatest importance in a program for the successful utilization of woman workers in defense industries:

- I. Physical characteristics of the job must be suited to woman's physique.
- II. Safety assures continuous production.
 1. Machinery should be carefully guarded.
 2. Speed is a powerful factor in causing fatigue and accidents.
 3. Muscular strain should be avoided if woman workers are to produce at their maximum.
 4. Minors must not be employed on hazardous processes.
- III. Women require special protection where industrial poisons are used.
- IV. The fine work many women perform calls for special lighting.
- V. Seats are vitally important for woman workers.
- VI. General plant sanitation and safety are essential.
- VII. Practical work clothing for women prevents injury.
- VIII. Moderate hours of work result in quality and quantity production.
- IX. Minimum-wage standards and prevailing-wage standards should be maintained.
- X. Training and employment policies should be adjusted to women's needs.
- XI. Industrial home work should be prohibited on Government contracts.

¹ Amalgamated Clothing Workers of America, International Association of Machinists, International Brotherhood of Electrical Workers of America, National Women's Trade Union League, Steel Workers' Organizing Committee, Textile Workers Union of America, United Workers of America, United Rubber Workers of America.

² U. S. Department of Labor. Women's Bureau. Effective Industrial Use of Women in the Defense Program. Washington, 1940. (Special Bulletin No. 1.)

Jobs Suited to Women's Physiques

Certain types of work are considered to be especially suited to women, as they do them particularly well. Among these are types of work requiring (1) care and constant alertness, good eyesight, and use of light instruments (such as gages, micrometers, etc.), but not much physical exertion; (2) manipulative dexterity and speed, but allowing the individual, who sits at her work, to set her own pace; (3) skill but not much strength, either in handling parts or setting up machines. Women also operate large machines well on heavy work, when lifting devices and pneumatic chucks are customarily used for such work. Specific jobs in these different types of work are pointed out in the report.

Safety, and Protection Against Industrial Poisons

Many women engaged in defense industries will be employed on processes new to them, which will bring them into contact with complicated machinery or where they will have to handle dangerous substances or sharp and irregular objects. All possible measures should be taken to protect them against injury from excessive speed, muscular strain, unguarded machinery, explosive chemicals, fumes, acids, dusts, or other injurious substances or conditions.

Certain poisons affect women more seriously than men, and some of these poisons are employed to a considerable extent in various processes suited to women's capacities. Among the industrial poisons which especially affect women are benzene, TNT, carbon disulphide, lead, mercury, arsenic, and silica dust.

The report stresses the need for constant study of materials and substances—and especially of new substances—of the manner in which they are employed, and of the use of more commonly known substances in new processes. In the case of poisonous substances which have been used in industry for a long time, known protective measures should be adopted.

Plant Health and Sanitation Measures

Good lighting in factories is considered necessary for quality output. Minimum requirements for certain occupations are set forth in the report. Special lighting should be provided for the fine work which many women do.

Seats are stated to be vitally important for woman workers, so that the individual worker can change from a standing to a sitting position. Also, the chair provided should be suitable for the worker and for the occupation.

General plant sanitation and safety are considered essential, not only for the health of woman workers, but also for their greatest pro-

ductivity. The importance of observance of State safety, sanitary, and factory-inspection laws is stressed, and it is recommended that particular problems be referred to State divisions of industrial hygiene, where there are such agencies.

The need for practical work clothing, such as safety hats, gloves, uniforms, shoes, leggings, spats, aprons, and goggles, in certain occupations and industries, for the prevention of injury, is emphasized. The following general standards are recommended:

1. Clothing must be reasonably comfortable in any temperature in which it is worn.
2. It must fit and not interfere with workers' movements.
3. It must afford adequate protection against the hazard for which it is designed.

Standards As to Hours and Wages

The importance of the maintenance of established hour and wage standards for women is stressed. The upholding of hour standards not only is possible but is considered vital to the defense program. Such a policy means that more persons are given employment as production is expanded, and fewer are left unemployed. Efforts to speed up production by longer hours or overtime for those already employed proved, during the World War, to be a short-sighted policy. Safeguarding the workers from excessive fatigue and conserving their energies, through moderate and regular hours of work, make it possible for them to produce steadily under pressure for a long period.

The basic standards as to working hours which are recommended are as follows: Not over 8 hours a day and 40 hours a week; 1½ and preferably 2 days of rest in every 7 days; from 30 to 60 minutes, at a regular time, for meals eaten at the plant; a minimum rest period of 10 minutes in the middle of each 4-hour period, without lengthening the workday or losing pay therefor; avoidance of overtime where possible, but if necessary, such excess time to be spread over all available workers and paid for at 1½ times the regular rate for the hours over 8 a day and 40 a week.

Women's wages should be sufficient to purchase the necessities of life and should be commensurate with the work performed, in order to maintain their health, morale, and efficiency. Compliance with existing State and Federal minimum wage rates by all establishments covered must be required. Periodic revision, and adjustment to any decided increase in the cost of living, are recommended.

The following wage policies apply especially in regard to women:

Rates should be based on occupation and not on sex or race of the worker.

The standard of wages prevailing for men should not be lowered where women are employed.

Certain uniform practices in setting wage rates are essential to the good of all concerned. Effort should be made to arrive at clearly defined occupations or standard rates, whether computed by the hour or by the piece.

Employment and Training Policies

During the rapid expansion of defense industries, sound employment policies are considered to be most important, in order that there may be a satisfied and satisfactory body of workers, that dislocation among workers may be avoided, and that output may be increased. Carefully worked out policies should take into consideration the men and women having jobs and those seeking jobs, and also present and future needs, especially as to the period immediately after the completion of the emergency program.

Training in the plant, at the expense of the employer, should be given to women who are employed for processes new to them. In many instances this training may need to be more extensive than it would be for men, because women do not have the same opportunity in vocational schools for general mechanical training and background.

Industrial Home Work

Industrial home work on Government contracts should be prohibited, the report declares. "Home manufacture of industrial products is not likely to result in best production methods." Experience during the World War showed that dirt and disease were present in many homes where sewing on Army clothing was done. Ordinarily, pay for industrial home work is low, and frequently this means that the labor of several members of the family, including small children, is necessary to obtain the small earnings. Twenty States now regulate home work: California, Colorado, Connecticut, Illinois, Indiana, Maryland, Massachusetts, Michigan, Missouri, New Jersey, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Tennessee, Texas, Utah, West Virginia, and Wisconsin.



CHILD CONSERVATION AND NATIONAL DEFENSE

A NATIONAL Citizens' Committee was established by the White House Conference on Children in a Democracy to give national leadership in making effective the recommendations of the Conference. This Committee holds that the Conference program will promote national unity, and will fortify the democratic institutions of the United States. It states that child welfare and national security are inseparable,¹ and declares that—

The defense of democracy calls for the appreciation of the dignity and worth of the individual, and concern for the young, the helpless, the needy, and the aged. Support of public and private services for children should be sustained as an essential part of a national-defense program.

¹ U. S. Children's Bureau. The Follow-up Program of the White House Conference on Children in a Democracy. (Supplement to The Child, Washington, July 1940).

National effectiveness requires further development of cooperation and self-discipline among our citizens. To destroy our liberties in an effort to protect them would be a tragic blunder. Denial of civil liberties, resort to mob action and other extralegal procedures, and throttling of free discussion of public issues will not advance the cause of democracy at home or abroad.

To be strong, a people must be well nourished. Proper food for mothers and children depends upon factors such as agricultural production and distribution, maintenance of family income, and education in nutrition.

Health services and medical care for all, particularly for mothers, children, and youth, should be maintained and extended.

Educational opportunity adapted to present-day needs should be made available to all children, to youth until they secure employment, and to adults as required for vocational efficiency and for citizenship.

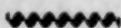
Standards now provided under Federal and State child-labor laws should be preserved, and similar safeguards should be extended to children needing but not now receiving such protection. The national strength does not need the labor of children.

Work opportunities should be made available for all youth who have completed their schooling, with necessary safeguards for their health, education, and welfare.

The gains under Federal and State legislation for the conservation of home life for children in need should be maintained and developed, with more active State and local participation.

We must consider ways in which we may help to safeguard the children of other lands from such misfortunes as hunger and homelessness. We cannot consider the needs of the children of this Nation and ignore the hardships visited upon children elsewhere.

The social gains of the past decade should be maintained in the present critical period. Standards of family living should have an important place in the program of the Advisory Commission to the Council of National Defense. The Advisory Commission should consider ways in which health, educational opportunity, and the social well-being of families and their children may be conserved and advanced as essential elements in a national-defense program.



APPOINTMENT OF SAFETY COMMITTEE FOR DEFENSE INDUSTRIES

EIGHT outstanding industrial-safety experts were appointed by the Secretary of Labor on July 28 to supervise a program to safeguard the productive manpower of the Nation engaged in defense-program activities. The plan was worked out by Secretary Perkins, safety-promotion experts, representatives of labor, and State and Federal officials and is designed to prevent injury or death of skilled workers; to preclude loss of worktime through sickness, accident, or occupational disease; to prevent delays to production schedules which follow accidents; and to control, as far as possible, factors making workers physically unfit.

The safety experts, who are assigned to eight geographical regions, will bring to industries (particularly smaller units) operating on Government contracts the expertness and efficiency in accident control exercised by the country's largest and best-managed industries.

In announcing the appointment of the Committee, the Secretary made the following statement:

The plan recognizes that although State or local safety and health regulations are basically necessary, effective control of labor waste through work disabilities requires safety education, organization, training, and stimulation wholly beyond the scope of regulatory laws or rules or codes. While in no sense do these activities supersede the regulatory requirements, the success of the plan is based upon the fact that industry itself through inspiration and example is giving the voluntary service of its technical experts to smaller units operating on Government contracts.

In essence, the plan represents the pooling of all accident prevention and industrial health conservation knowledge in which Government, management, and labor participate and share equally in the benefits. Management benefits through uninterrupted and less costly production; labor, by uninterrupted wages and earnings; the Government, by assurance of on-time delivery of needed defense materials.

Upon the awarding of a Government contract, the plant management will be notified of its general responsibilities to safeguard its production through the inauguration of a safety program and of the availability of a safety specialist in its own community ready and willing to act as its safety adviser. The regional representative of the National Committee, at the same time, will be given the name and location of the contractor and he, in turn, will immediately assign a district or local committee member as a suitable plant contact man.

The man assigned will volunteer to assist the management in the organization of a safety program, in the organization of shop safety committees, in the creation of a training program, to make an appraisal of physical hazards and submit information on their correction, and in other ways act as a continuous adviser for the duration of the contract.

The plan will be executed by a 24-man committee to be known as the National Committee for the Conservation of Manpower in Defense Industries. The membership will include safety experts from private industry, executives from the national and local safety councils, labor representatives, and State officials administering laws relating to safe and healthful work conditions. Appointed as special agents of the Department of Labor, these men will serve entirely on a voluntary basis. This group will meet at regular intervals in Washington to establish policies and procedures, to analyze results, and to develop promotional, instructional, and technical information.

The Labor Department's Division of Labor Standards, under its responsibility for the promotion of industrial safety and health, is acting as the clearing house for all activities under the plan.



ALIEN REGISTRATION PROGRAM

THE Alien Registration Act of 1940 requires all aliens 14 years of age or over in the United States to register and be fingerprinted during the 4-month period, August 27–December 26, 1940.¹ Alien children under 14 years of age must be registered by their parents or guardians. Failure to register, refusal to be fingerprinted, or the making of a registration statement known to be false is punishable by a fine (not to exceed \$1,000) or imprisonment (not to exceed 6 months) or both.

¹ See *Monthly Labor Review*, Washington, August 1940, p. 245.

As a part of the educational campaign ² to inform aliens of registration requirements, the newly established Alien Registration Division of the United States Immigration and Naturalization Service is distributing over 5,000,000 specimen forms containing the questions to be asked aliens in the registration period. In addition to the usual inquiries for purposes of identification, the schedule includes questions as to how and when the alien entered the United States, the method of transportation used to get to this country, and the name of the vessel on which he arrived. He is also questioned as to the length of time he has been in this country and how long he expects to remain. He must also report on any military or naval service he has had and give the names of any organizations of which he is a member or in which he participates. Moreover, he must describe his activities in any organization and declare whether or not the organization promotes the program or the interests of a foreign government.

To facilitate their registration, aliens will be requested to fill out sample forms which will be available to them previous to registration and present these forms at post offices where noncitizens will be registered and fingerprinted. Every registered alien will be mailed a receipt card which will serve as proof of his registration. Subsequent to registration, the act makes it necessary for all aliens, as well as parents or guardians of alien children, to report changes of residence address within 5 days of the change.

The Alien Registration Act was passed so that the United States Government may determine exactly how many aliens there are, who they are, and where they are. Both President Roosevelt and Solicitor General Biddle have pointed out that registration and fingerprinting will not be harmful to law-abiding aliens. The act provides that all records be kept secret and confidential. They will be available only to persons approved by the Attorney General of the United States.

No stigma is attached to the fingerprinting of aliens. Every year thousands of citizens are voluntarily fingerprinted. Members of the United States military and naval forces are all fingerprinted, and also many Government employees. Recently, many hospitals have instituted the practice of footprinting newly born children. Fingerprinting being the only known infallible method of accurate identification, the United States Government has incorporated it in the registration program.

In signing the Alien Registration Act, the President said:

[This legislation] should be interpreted and administered as a program designed not only for the protection of the country but also for the protection of the loyal aliens who are its guests. The registration * * * does not carry with it any stigma or implication of hostility toward those who, while they may not be citizens, are loyal to this country and its institutions. Most of the aliens in this country are people who came here because they believed and had faith in the

² U. S. Immigration and Naturalization Service, Alien Registration Division, Washington. Release of July 26, 1940.

principles of American democracy, and they are entitled to and must receive full protection of the law.

Solicitor General Biddle stated:

We should remember that all Americans were at one time or another immigrants from other lands. The genius of many countries, the ancient aspirations of many races, have built into what is America. Unfortunately, there are some foreigners who are disloyal to America, who do not wish to accept our ways, and who use our freedom of speech and of the press to foment disunity and sedition.

These persons we will apprehend, but we will also see to it that loyal American aliens are not unjustly condemned for the disloyal behavior of a few. Our registration will be their protection from persecution.

The Immigration and Naturalization Service asks for the cooperation of all United States citizens to facilitate the friendly carrying out of the alien registration program so as to avoid arousing any antagonism in the immense foreign population of this country. Citizens may render valuable assistance to their relatives and neighbors who do not speak English well, by explaining the requirements of the Registration Act and telling them where aliens should be registered.

Foreign Wartime Policies

LABOR IN GREAT BRITAIN IN THE SUMMER OF 1940

IN ORDER to accelerate production of war materials British labor has been working a considerable amount of overtime in recent months, paid vacations in essential industries have been postponed, training has been extended, women who have not previously worked in certain kinds of jobs have been engaged, and machinery has been established for the arbitration of industrial disputes. Both wages and cost of living have continued to increase. Following the change in the Cabinet in May 1940, additional regulations were issued by the Government for the control of labor and its protection, and greater powers to coordinate the national war effort were concentrated in Government Departments, notably the Board of Trade and the Ministry of Labor and National Service.

Unemployment

Official returns show that 827,266 persons (both insured and uninsured) were registered as unemployed in July 1940. The number registered increased as compared with the preceding month but was only about two-thirds of the corresponding total for July 1939.

	<i>Number registered</i>
June 1939.....	1, 349, 579
July 1939.....	1, 256, 424
January 1940.....	1, 518, 896
June 1940.....	766, 835
July 1940.....	827, 266

Registration in June 1940 was the lowest of any month since records were first kept in 1920. Concern was felt in Great Britain because unemployment was not disappearing more rapidly and there was an increase in July over June, but it was recognized that some of those registered were persons not previously engaged in industry who wished to take up war work. Decreases in employment were due in part to the reduction in domestic consumption which was encouraged by the Government and in part to the unavoidable loss of continental markets resulting from the defeat of France.

Unemployment statistics do not show the steady flow or transfer that is taking place into war industries from the less essential industries. If this shift could be shown from the available data, a more

adequate measurement of the changes in employment in war industries would be possible.

Every effort is being made to fit the unemployed into jobs. Thus, the Minister of Labor stated in the House of Commons on July 11 that, in order to facilitate the reabsorption of miners who became unemployed when coal shipments to France ceased, instructions had been issued, after consultation with the Minister of Mines, for the employment of these workers in industries other than coal mining. This has the twofold advantage of making full use of miners' labor and of avoiding the need of drawing on the unemployment fund for payment of benefits. Workers are also being transferred, with Government financial aid, from places where there is no work to areas where they are needed.

Long Hours and Their Effect

The Whit-Monday bank holiday on May 13 was canceled by regulations issued under the Emergency Powers (Defense) Act of 1939. This holiday is celebrated in Great Britain by a complete shut-down of industrial work similar to that on Labor Day in the United States. Later, all firms engaged on urgent work were called upon, by Ministerial announcement and direct communications to contractors, to work full overtime and week ends. Appreciation of the response to these appeals was expressed by the Minister of Labor on May 29. In this statement it was pointed out that the 7-day week should be continued for a time on urgent work; that the Labor Supply Board was studying methods of maintaining health and physical efficiency by giving rest periods; and workers and employers were asked to cancel all holidays, pending developments.

On June 13 it was announced in the House of Commons, in response to a question, that the Government had asked for a general cancellation or postponement of holidays during the crisis, to avoid interference with production of munitions and to leave the transport facilities free for evacuation and civil defense work. All were urged to keep up the high rate of production, although it was recognized that a 7-day week without adequate rest periods is not an efficient long-time method of production. In cases of legal obligation to grant paid vacations it was stated that equitable adjustments would be made. (For example, employees whose conditions of employment are established by trade boards may now have their paid holidays at any time up to March 31, 1941, and the holiday may be granted in two spells.) Again, it was ordered that the usual August 5 bank holiday granted under existing legislation would not be observed, but that employees would be entitled to extra pay for work done on that day in cases where any agreement (oral or written) made provision for extra rates of pay.

However, because of the ill effects of excessive overtime, the Select Committee on National Expenditure has recommended a reduction in overtime work in ship-repair yards, especially on Sundays. In making this recommendation it was stated that, in addition to increasing sickness and reducing efficiency, overtime worked on Sundays and holidays (for which double time is paid) added heavily to costs.

The Minister of Labor stated in an address in July that a scheme was under consideration whereby men working in munition plants 84 hours weekly might be relieved under a system of rotation. Women, he added, would soon be asked to do 2 days of work weekly, thus maintaining production and insuring rest periods for the men.

Exceptions from the maximum-hours provisions of the Factories Act of 1937, fixing hours of women and young persons, were to be discontinued August 1. The exemptions permitted since the outbreak of war have resulted in a loss in industrial efficiency and therefore the Minister of Labor announced that the observance of the hours provisions of the legislation would be required as from the date specified.

Under an order of the Minister of Labor, the occupier of any named factory will be required to make arrangements for part- or whole-time doctors, nurses, and officers to supervise the health and welfare of the persons employed. By adopting this measure, it is hoped to minimize some of the ill effects of working long hours.

Training Centers

The Government training scheme adopted by the present Minister of Labor calls for training 100,000 workers annually, instead of 40,000 planned for earlier in the war effort. To increase the number trained, only engineering is now taught instead of several trades. In some cases two shifts of classes are held and three shifts are under consideration. The length of the course has been reduced from 6 months to 3 to 5 months, depending on the capacity of the individual to learn. Men receiving shorter courses are placed with employers who are prepared to continue their training. There is close cooperation between the training centers and employers.

As additional instructors were needed to teach the increased number of trainees, some teachers were taken from among older men who could not stand the pace of industry. Others were removed from jobs, and certain employers volunteered to release men for this work.

Men in nonessential industries and unemployed men are eligible for training at the centers. All suitable men over 18 who have not already registered under the National Service (Armed Forces) Act may enroll. For machine-operating instruction they must be 25 years of age. Men reserved from military service may be accepted if they have not been employed in a reserved occupation for 2 months or more, and other exceptions are provided for.

Trainees who are not eligible for unemployment benefit are paid a training allowance. Those who have to live away from home receive allowances normally sufficient, after deduction for board and lodging, to leave them 6s. a week for personal expenses. If the man has dependents at home, the dependent wife receives 27s. weekly, plus 4s. for each of the first two children and 3s. for each additional child.

Men who are in receipt of unemployment-insurance benefit at the time they apply for training continue to draw their benefits during training. The amount is increased according to the scale already described. If their right to benefit is exhausted during the period of training, they continue to receive the allowances until the end of the training period.

According to the parliamentary debates in the House of Commons, on June 27 there were 10,700 trainees in the training centers, an increase of 6,000 in 4 weeks.

Regulation of Hiring of Workers

Effective June 10, the Minister of Labor, by order, forbade employers to engage a worker or seek to engage one, except by reporting particulars of the vacancy to the local office of the Ministry and engaging the worker suggested by the Ministry in the following industries: Engineering, building, and civil engineering, and male workers in agriculture and coal mining. This means that workers in these industries must apply to the local office of the Ministry for work. Employers may reengage workers who were last employed by them within 14 days of the date of reemployment. To facilitate engagement of workers in enterprises of national importance, who are transferred by the Minister of Labor, lodging and traveling allowances are authorized from Government funds.

Woman Workers

Women doing the same work as men are in many cases receiving the same rate of pay for the work performed. This principle was laid down in a decision of the London Industrial Court, affecting woman bus and train conductors in the employ of the municipality.

The question of the dilution of labor in the engineering industry was under discussion before the outbreak of the war. On August 31, 1939, a voluntary agreement was reached whereby the union agreed that the introduction of new workers into the industry should be controlled by committees of employers and labor representatives and that the matters that could not be settled should be referred to a joint national body.

In May of the present year agreements were entered into between the Engineering and Allied Employers' National Federation, the Amalgamated Engineering Union, the Transport and General Workers'

Union, and the National Union of General and Municipal Workers, to provide for a temporary relaxation of existing custom so as to permit women to be employed in the industry for the duration of the war. It is specified that women shall be regarded as temporary employees and that jobs usually filled by women are not affected.

Women filling boys' and youths' jobs are to receive the boys' or youths' rate of pay or the women's rate, whichever is greater. Where they are engaged to fill men's jobs they must serve a probationary period of 8 weeks at the women's national wage of time rate plus bonus. During 12 additional weeks they are entitled to a higher rate of pay. An increase is awarded at the end of 20 weeks for a further 12-week period. If at the end of 32 weeks they are able to do the work of the men they replace, they receive the full basic rate plus the national bonus appropriate for male labor.

If women enter an employment fully qualified to perform the work, they are not required to serve probation before receiving the full pay (for male labor they replace) plus bonus. Should a question be raised under this agreement, provision is made for handling it under the ordinary procedure for avoiding disputes, except that, failing a local agreement, the matter is to be dealt with promptly by a special central conference held in London.

Arbitration

By order in council of July 10, the Minister of Labor was granted the power to issue orders designed to prevent the interruption of work by strikes and lock-outs. It was stipulated that the Minister might by order make provision for establishing a tribunal for settling labor disputes and regulating its procedure; prohibiting a strike or lock-out; requiring employers to observe conditions of employment not less favorable than the recognized conditions; recording departures from any rule, practice, or custom in respect of the employment, nonemployment, conditions of employment, hours of work, or working conditions of any persons; and for any incidental or supplementary matters for which the Minister thinks it expedient to provide. Nothing in these regulations shall affect the power to refer labor disputes or other matters for settlement or advice under the Industrial Courts Act of 1919.

A national arbitration tribunal was created by order of the Minister on July 18. Under the terms of the order issued this national arbitration body will deal with disputes which cannot be settled by existing conciliation machinery. This, it has been stated, in practical effect means that strikes and lock-outs are illegal for the duration of the war. The tribunal is composed of five members, three of whom are appointed members (including the chairman) and two of whom are selected from panels of employers' and workers' representatives.

Under this order, the Minister of Labor determines the suitability of existing bodies to settle a dispute and may, if he sees fit, refer the matter to the national tribunal in the first instance. If other bodies fail to bring about a settlement of the dispute, the Minister must refer the case to the national tribunal within 21 days of the date when it was reported to him, unless special circumstances make postponement desirable. Any agreement, decision, or award is binding on the employers and workers affected. They may not participate in a strike or lock-out unless the dispute has been reported to the Minister by or on behalf of either party to the dispute; and 21 days have elapsed since the date of the report and the dispute has not during that time been referred by the Minister for settlement in accordance with the prescribed procedure.

Provisions were incorporated in the order creating the national arbitration system whereby employers are obliged to observe recognized terms and conditions of employment and to record departures from trade practices. A trade practice is defined as any rule, practice or custom in respect of employment and related factors such as conditions of employment, working hours, etc. Earlier in the war effort, in speaking on the setting aside of trade-union custom, the Lord Privy Seal pointed out that unless employers restored these customs after the war they would be ineligible for Government contracts.

Wages and Cost of Living

Notwithstanding the control introduced over other working conditions, the Government has not exercised its power to limit rates of pay. Agricultural workers recently had their minimum wages increased to 48s. per week by the Agricultural Wages Board. This minimum was applied nationally, as it was believed that agricultural workers should be paid wages commensurate with those in industry, if they were to be required to stay on the land. Exceptions from the agricultural minimum are permissible in cases where workers lack experience or for other reasons are not entitled to receive the minimum wage.

Wages continue to increase in many industries. In June increases were authorized for approximately 2,160,000 workpeople to a total of £215,000 weekly. The decreases affected about 90,000 persons and aggregated an estimated £600 weekly. Wage increases have been offset to an undisclosed degree by the recent rises in the cost of living. The index number of the cost of living, based on the cost in 1914 as 100, was 155 when war was declared in September 1939. It was 187 in July 1940. Expenditures for certain classes of goods are limited, as a result of the rationing of a few basic commodities, such as butter, fats, sugar, and tea. High prices doubtless have the same effect as rationing, in reducing purchases of certain luxury goods.

Extended Governmental Powers

MINISTER OF LABOR AND NATIONAL SERVICE

The duties of the Minister of Labor and National Service have been enlarged. Under orders-in-council making defense regulations since the enactment of the Emergency Powers (Defense) Act of May 22, 1940, the Minister of Labor was given unprecedented powers to control labor.¹ A new organization was required. It includes the Labor Supply Board (consisting of four directors) and local labor supply committees. They cooperate with the employment exchanges, which are directed by divisional controllers who are the principal representatives of the Minister of Labor in each area. Thus, the employment exchanges are the key for the clearing of essential labor. Inspectors of labor supply are responsible for inspecting firms to secure the best use of skilled workers and the training of others.

The Minister of Labor is working in close cooperation with employer and employee organizations. The National Joint Advisory Council, composed of representatives of the British Employers' Confederation and the Trades Union Congress General Council, which was created earlier in the war period to advise the Government, appointed a consultative committee to advise the Minister of Labor on all matters arising out of the new emergency legislation.

The divisional controllers of the employment exchanges, mentioned above, were formerly appointed by the Minister of Supply. Similarly, the Minister of Labor has been made responsible for administering the terms of the Factories Act for the duration of the war. This task is ordinarily under the jurisdiction of the Home Secretary, but was turned over to the Minister of Labor by regulations issued on June 7. To assist in giving effect to these powers, and in stimulating and developing to the fullest extent the safety, health, and welfare arrangements inside the factories and the billeting, communal feeding, and welfare arrangements outside of the plants, the Minister of Labor established a Factory and Welfare Advisory Board. The Minister of Labor was also accorded powers previously held by the Secretary of State under the factories legislation.

MINISTER OF SUPPLY

Although the Minister of Labor fits the available working force into existing jobs, the Minister of Supply has been empowered to determine what plants shall operate and what they shall produce. Under the emergency powers legislation, an order was issued authorizing the Minister of Supply to declare any establishment to be a "controlled undertaking." If the Minister, by order, declares any

¹ See Monthly Labor Review, July 1940 (p. 31).

or all undertakings of a particular class or description to be controlled, such enterprises must operate in accordance with the orders made or directions given by a competent authority, that is a Secretary of State, the Admiralty, the Minister of Labor and National Service, the Minister of Supply, and the Minister of Aircraft Production. The competent authority may delegate its functions to any specified persons or class of persons.

If control is established, the competent authority may require the controlled establishments to do specified work, may determine the number and kind of persons employed, and fix the price to be paid for any articles produced or supplied. The directors of controlled establishments must comply with the orders issued, regardless of other commitments by virtue of any law or other instrument determining their functions. The competent authority may at any time enter and inspect any premises used or appropriated for the undertaking. According to a report received from the American Embassy in London, 1,500 factories had been declared under control on June 21.

For the purposes of this order an undertaking "means any public-utility undertaking or any undertaking by way of any trade or business." Thus, the possibilities for control are very broad, and the Government has the power to direct productive labor to do an increasing amount of essential work, cutting to the minimum the employment in the manufacture of consumption goods and the service trades, where necessary.

SOURCES: This article is based upon data from the following sources: Great Britain—Ministry of Labor Gazette, June and July 1940, and Parliament, House of Commons, Parliamentary Debates, July 11, 1940; The Economist (London), July 20 and August 3, 1940; Manchester Guardian, issues of July 4, 9, 11, 17, and 20, 1940; U. S. Department of Commerce, Commerce Reports, August 3, 1940; reports from the American Embassy in London; and New York Times, August 7, 1940.



BILLETING ALLOWANCES FOR EVACUATED CHILDREN IN GREAT BRITAIN

A REVISED scale of allowances to be made by the British Government, for children evacuated from their homes as a measure of safety from air raids, was made effective on May 31, 1940.¹ Payments to persons furnishing board and room range from 8s. 6d. to 15s. per child.²

For a child aged—

	Weekly allowance
16 years or over.....	15s. 0d.
14 and under 16 years.....	12s. 6d.
10 and under 14 years.....	10s. 6d.
Under 10 years (when only 1 is billeted).....	10s. 6d.
Under 10 years (when 2 or more are billeted).....	8s. 6d.

¹ Data are from Local Government Chronicle, London, June 15, 1940.

² For earlier schedule of allowances see Monthly Labor Review, November 1939.

RECENT CANADIAN WAR MEASURES ¹*National Resources Mobilization Act*

ON JUNE 21, 1940, royal assent was given to the Canadian National Resources Mobilization Act. Section 2 of this measure conferred special emergency power on the Governor in Council who, subject to the provisions of section 3 of the same law, "may do and authorize such acts and things, and make from time to time such orders and regulations, requiring persons to place themselves, their services, and their property at the disposal of His Majesty in the right of Canada, as may be deemed necessary or expedient for securing the public safety, the defense of Canada, the maintenance of public order, or the efficient prosecution of the war, or for maintaining supplies or services essential to the life of the community."

Under section 3 of the act, the powers accorded to the Governor in Council "may not be exercised for the purpose of requiring persons to serve in the military, naval, or air forces outside of Canada and the waters thereof."

Penalties are imposed for violations of orders and regulations under the act. Such penalties may be imposed upon summary conviction or upon indictment, but no penalty shall exceed a fine of \$5,000 or imprisonment for more than 5 years, or both fine and imprisonment.

Department of National War Services Act

Complementing the National Resources Mobilization Act, a measure, which received royal assent on July 12, 1940, provided for the establishment of a Department of National War Services.

The first major function of the new department, which is presided over by the Minister of Agriculture, will be to carry out the purposes of the National Resources Mobilization Act with reference to registration; namely, to conduct such national registration and survey as may be necessary to carry out the Department of National War Services and National Resources Mobilization Acts, and to place the findings at the Government's disposal.

Other functions of the new department will include the promotion, organization, and coordination of various forms of voluntary assistance, with a view to using most effectively personal services or material contributions for the conduct of the war and the nation's welfare.

The Department of National War Services Act also provides for the coordination of the present public information services of the Government and the initiation or employment of other means so that such services may be utilized in the most efficient way to secure the greatest aid from the people of Canada in the existing national emergency.

¹ Canadian Labor Gazette, Ottawa, July 1940, pp. 629-632.

The Minister is authorized to constitute national, provincial, or local councils, committees, or boards, and use existing agencies and organizations to aid him in attaining the objective of this act.

Departments or organizations, empowered to obtain data concerning matters on which the Minister is authorized to require information, must, if called upon by the Minister, assist him in securing such data and must turn it over to him.

Order Establishing Wartime Industries Control Board

The Wartime Industries Control Board was constituted under an order in council (P. C. 2715), issued on July 2, 1940, which also provided for the appointment of "controllers" for the leading industries.

This Board has been set up under the provisions of the Department of Munitions and Supply Act and the War Measures Act, to organize the sources of supply of munitions and agencies available for the same "and generally to take steps to mobilize, conserve, and coordinate the economic and industrial facilities of Canada available in respect of munitions and supplies for the effective prosecution of the present war."

To the controllers are delegated some of the wide powers conferred on the Minister of Munitions and Supply to "conserve, coordinate, restrict, and regulate certain essential supplies."

As a consequence it was deemed desirable that these controllers should "act in respect to common problems along similar lines and in conjunction with the Foreign Exchange Control Board, and should for such purposes be constituted as a board."

Typical of a controller's powers are those of the steel controller. The order in council's definition of "steel" includes iron ore of any kind, pig iron, scrap metal, and any raw materials or metals that go into the making of steel or are used to modify its qualities. According to the order in council, some of the powers of the steel controller are—

To buy, take possession of, or otherwise acquire, manufacture, process, fabricate, machine, finish, store, transport, allocate, distribute, sell, exchange, or otherwise dispose of and generally to deal in steel;

To enter any plant, factory, or building for the purpose of inspecting any steel;

To take possession of steel, wherever found;

To enter on and take possession of any land, buildings, or premises and to take possession of any plant, used or capable of being used for making, processing, finishing or storing steel;

Subject to the approval of the Minister, to fix maximum prices or maximum mark-ups at which steel may be sold or offered for sale;

Subject to the approval of the Minister, to fix or limit the quantity of steel which may be sold or distributed by or to any person, firm, or corporation within specified periods of time, and to prohibit the sale or distribution in excess of the quantities so fixed or limited;

To give directions to any person, firm, or corporation owning or having possession of or control of or power to dispose of any steel, requiring such person, firm, or corporation to sell, process, finish, store, transport, or otherwise deal with such steel in such manner as may be specified in such directions, and in priority to any other business of such person, firm, or corporation, or otherwise as may be specified

in such directions; where directions are given to any person, firm, or corporation as herein provided, then the compensation, if any, to be paid shall be such as may be agreed upon between such person, firm, or corporation, and the Minister, or in default of agreement, the claim for compensation shall be referred to the Exchequer Court;

To issue permits or licenses to any person, firm, or corporation to buy, sell, or otherwise deal in steel, and to suspend, cancel, or refuse to issue any such permit or license, whenever the Steel Controller deems it in the public interest so to do * * *;

To prohibit any person, firm, or corporation from buying, selling, transporting, exporting, importing, or otherwise dealing with or in steel unless licensed by the Controller * * *;

Subject to the approval of the Governor in Council, to advance moneys to any person, firm, or corporation in the business of processing iron ores into pig iron, and pig-iron scrap metals or any other raw materials into steel, for the purpose of assisting such person, firm, or corporation, in the carrying on of such business.

Like powers, which vary in degree according to the character of the industry, have been conferred upon the controllers of timber, metals, and oil. The definition of the last-mentioned commodity includes "crude oil, petroleum, lubricating oil, fuel oil, gasoline, kerosene, naphtha, asphalt, bitumen, and all derivatives therefrom and by-products thereof * * *."



EMERGENCY LABOR LEGISLATION IN DENMARK

ON May 28, 1940, shortly after the invasion of Denmark by Germany, the new Danish Government issued a series of nine laws designed to meet the changed conditions under foreign domination. These laws cover distribution of work, prices, wages, labor disputes, and other labor conditions. Each of the laws is summarized below.¹

1. Law to spread available work, for the purpose of reducing unemployment, in establishments where such a measure will tend to retain or increase the existing number of workers. Although the workers will have to accept a shortening of their working hours, they will not be entitled to unemployment relief. Instead they will be granted a special allowance, which will be graduated on the basis of the shortening of hours. The funds for these allowances or expenditures will be provided for by a special tax or contribution which must be paid by all wage earners, as follows:

Workers receiving an annual wage of—	Annual contribution (kroner)
From 1,801 to 2,400 kroner.....	12
From 2,401 to 3,600 kroner.....	36
From 3,601 to 4,800 kroner.....	84
From 4,801 to 6,000 kroner.....	120
6,001 kroner and over.....	192

¹ Data are from report of J. B. Foster, American commercial attaché at Copenhagen.

2. Law basing wages on cost-of-living index for January 1940. Danish wages have been based for years on the cost-of-living index published quarterly by the Danish Statistical Department. The increase in cost of living which has been gaining momentum since the beginning of the war in the autumn of 1939, has brought about continuous wage increases, which in turn have tended to cause price increases, thereby making further advances in the cost of living. The stated purpose of the new law is to put a stop to the resulting development of a "vicious circle" and to begin inflation by basing wages on the January cost-of-living index. However, as the April cost-of-living index had already been published and had led to new wage increases, the new law will cause a reduction for some workers to the wage level reached by them on the basis of the January index.

3. Law giving increased authority to Ministry of Commerce for control of prices. The act also changes the basis of calculation of prices. Previously, increases in sales prices were allowed if they were based upon replacement costs of the goods involved, whereas, in the future, prices can be increased only on the calculation of the so-called cost-price basis. This means that a price for a given product or object must not be quoted higher than is justified by its actual cost price plus customary profits, regardless of replacement cost.

4. Law limiting dividend payments. This act limits, from the date of its passage, payment of annual dividends by corporations to a maximum of 5 percent plus two-thirds of the average percentage in excess of 5 percent which has been declared during the last 3 years. Gratuities, as a general rule, must not be paid to any person connected with the management of the establishment at more than 2,000 kroner per annum plus two-thirds of the amount paid in excess thereof during the last 3 years.

5. Law increasing the funds for unemployment benefits by 20 million kroner. It was feared that reduction of wages to the level determined by the January cost-of-living index might cause financial difficulties for the unemployment societies, as the reduced earnings of workers might make it difficult for them to pay their contributions. Therefore, the Government has decided to increase its contribution to the societies, as otherwise their members not only would have to accept lower wages but also would have to pay higher contribution rates.

6. Law providing that any disputes which may arise between employers and workers under some 14 existing agreements must be decided in future by a special arbitration court. The court will consist of four members, of whom one is to be a supreme court judge and will be appointed by the Premier, one is to be appointed by the Government mediator, and the remaining two are to be appointed by the permanent arbitration court. All of the 14 agreements relate to agriculture, and include the slaughterhouse industry, the dairy industry, etc.

7. Law providing for establishment of a credit fund of 100 million kroner for the furtherance of trade and employment. The functions of the fund will include issuance of loans and guaranties against losses suffered on loans furnished by banks to trade and industry, or for the starting of new enterprises.

8. Law providing for closer cooperation between provincial governments and public employment agencies and unemployment societies, with a view to obviating complaints from agriculture of scarcity of labor in spite of the large number of registered idle workers. This law also restricts the granting of unemployment relief, particularly in the case of younger idle workers, unless the persons are able to prove that the above-mentioned authorities have been unable to assign any work to them.

9. Law increasing the fund for loans to local governments from 75 to 100 million kroner. At least 35 million kroner of this total should be reserved for loans to rural communities in order to meet their relief needs.



LABOR DISCIPLINE IN GERMAN FORCED-LABOR SERVICE

A GOVERNMENT order issued on March 12, 1940, provides for the punishment of opponents to the forced labor service in Germany.¹ Persons who refuse to perform the required labor service, and who encourage and incite other persons to do so, are to be punished by internment in a house of correction (*Zuchhaus*) or in prison, depending upon the degree of seriousness of the offense.

The same punishment will be meted out to the persons committing acts prejudicial to the "spirit, harmony, and contentment" prevailing among workers engaged in forced-labor service, and to those committing acts resulting in evasion of service, either by the persons themselves or by other members of the service, through self-inflicted injuries, malingering, or desertion.

For offenses by female workers, the Government regulations of January 30, 1940,² stipulate imprisonment for periods ranging up to 90 days (according to the seriousness of the offense). In addition to imprisonment, the offenders may be suspended and expelled from their employment.

In this connection it may be noted that in countries under totalitarian régimes, where workers are attached to their workplaces and retention of jobs is only by permission of the Government, suspension or expulsion are the harshest possible disciplinary measures, since the Government controls not only jobs but also food supplies.

¹ Reichsgesetzblatt, March 14, 1940, Part 1.

² Idem, February 2, 1940.

Employment and Labor Conditions

TRANSFER OF INTERNATIONAL LABOR OFFICE PERSONNEL TO MONTREAL

THE following announcement was made by the Canadian Government on August 19, 1940:

"Announcement was made today by the Hon. Norman A. McLarty, Minister of Labor, that the Government of Canada has indicated its willingness that the personnel of the International Labor Office necessary to carry on the services should temporarily be transferred to Canada. By June of this year the Office at Geneva found itself practically isolated from the great majority of its member countries. Communication had become difficult if not impossible, so that it was obvious that the work of the Organization could no longer be carried on effectively from Geneva. In this situation, the Canadian Government agreed to facilitate the temporary transfer of its personnel to Canada.

"Canada has been a strong supporter of the International Labor Organization since its foundation over 20 years ago, and has maintained a permanent office in Geneva to facilitate cooperation with its work. A Canadian delegation was present at the first International Labor Conference in Washington in 1919 and Canadian delegations representing the Government, employers' and workers' organizations have been present at every annual conference since that time.

"Montreal has been selected by the Director as the most suitable and convenient location for the new quarters of the International Labor Office and McGill University has agreed to provide the necessary office accommodation. The staff of the International Labor Office in Montreal will consist of between 40 and 50 persons. * * *

"The International Labor Office was established in Geneva under the authority of the treaties of peace following the first Great War, to promote the improvement of industrial conditions by legislative action and international agreement. The essential object of the International Labor Organization has been to frame and supervise the applications of international rules with regard to conditions of labor. In addition to the preparation of draft labor conventions, the chief functions of the International Labor Office have been inquiries into labor conditions (contracts of employment, working hours, wages,

etc.); unemployment; industrial health and safety; conditions of agricultural laborers; technical education; social insurance; labor statistics, etc., and the collection of documentary material, information and publications on social and labor problems."

John G. Winant, Director of the International Labor Office, forwarded the following communication to member governments of the International Labor Organization:

In accordance with policy established by Governing Body the International Labor Office continued to maintain essential activities despite war but since my last message to you lack of communication and transportation threatened to isolate Geneva Office from non-European member States. In these circumstances the Canadian Government indicated its willingness that personnel of the International Labor Office necessary to carry on the services should temporarily be transferred to Canada. Therefore, acting under emergency powers vested in me, I have authorized transfer of such personnel pending final decision by competent authority of Organization. * * * In informing you of this emergency action I rely upon support of your Government.

For information relating to the proposed International Labor Conference, June 1940, see page 613.



EMPLOYMENT UNDER THE WPA, 1939

EMPLOYMENT was provided for an average of approximately 2,900,000 persons on projects of the Work Projects Administration during the fiscal year ending June 30, 1939. In addition, approximately 100,000 persons were given work on projects of other Federal agencies which were financed by WPA funds. At the peak of employment activities, as many as 3,360,000 persons were employed on WPA-financed projects. More WPA jobs were provided, on the average, than during any of the 3 preceding years, according to the report of the Work Projects Administration for the year ending June 30, 1939,¹ from which the following data are taken.

The expansion in WPA employment became necessary mainly because there was an increase, prior to the enactment of the appropriation act, in the number of unemployed awaiting WPA jobs, and later in those who had exhausted their private means and unemployment compensation and were in need. The hurricane and floods in New England and the condition of southern tenant farmers and farm laborers because of a poor year were also instrumental in increasing the number of workers on WPA projects.

The number of persons employed on projects operated and financed by the WPA during the year, by months, is shown in table 1:

¹ Federal Works Agency. Work Projects Administration. Report on Progress of WPA Program, June 30, 1939. Washington, 1939.

TABLE 1.—Number of Persons Employed on Projects Operated and Financed by WPA, by Months, July 1938 to June 1939

Date	Total	WPA-operated projects	Projects of other Federal agencies	Date	Total	WPA-operated projects	Projects of other Federal agencies
1938				1939			
July 27.....	3,053,327	2,966,832	86,495	January 25.....	2,985,620	2,895,125	90,495
August 31.....	3,171,184	3,085,762	85,422	February 22.....	3,043,367	2,955,022	88,345
September 28.....	3,228,082	3,136,505	91,577	March 29.....	2,980,472	2,882,722	97,750
October 26.....	3,346,107	3,253,623	92,484	April 26.....	2,750,639	2,629,314	121,325
November 30.....	3,286,592	3,193,658	92,934	May 31.....	2,599,673	2,457,901	141,772
December 28.....	3,093,855	3,002,241	91,614	June 28.....	2,551,418	2,420,741	130,677

The program of the WPA consists of projects of many varieties, because the different communities require various kinds of public improvements and also because the occupational skills of the unemployed are of many kinds. Construction works, however, furnished the greatest amount of employment. Aside from construction projects, more workers were employed on white-collar and sewing projects than on any other. Most of the WPA employment for women was on these projects, over half of the white-collar workers and 96 percent of the persons who worked on sewing projects being women.

WPA workers were practically all paid according to the schedule of monthly security wages, which set different wages for unskilled, intermediate (semiskilled), skilled, and professional and technical work.² At the end of the fiscal year (as of June 21, 1939), persons assigned to the unskilled rates constituted the majority of the workers. Of each 1,000 workers, 658 were assigned to unskilled work, 129 were skilled workers, 142 were intermediate (semiskilled) workers, 35 were professional and technical workers, and 36 were non-security-wage workers. A distribution of each 1,000 persons employed on WPA operated projects by major types of projects and by wage classes is given in table 2.

WPA project workers are a continually shifting body, thousands leaving in the course of each month and other thousands of unemployed who are eligible being added. During the year ending June 1939, the number of persons separated each month from WPA-financed projects ranged from 163,000 to over 340,000 persons, or from 6 to 12 percent of the total number employed at the beginning of the month. Between 97,000 and 327,000, or from 3 to over 11 percent of the total employment, were added each month.

Voluntary resignations were generally at a high rate during the year, and the majority of these separations were for the purpose of returning to private employment. Over the year the rate of volun-

² A new schedule of monthly earnings for WPA workers went into effect on September 1, 1939. For details, see October 1939 Monthly Labor Review (p. 959).

tary separations averaged above 4 percent of the employment at the beginning of the month, the highest being 5.5 percent in September 1938. The rate was lowest in the winter months.

TABLE 2.—*Distribution of Each 1,000 Persons Employed on WPA-Operated Projects, by Major Types of Projects and by Wage Classes, June 21, 1939*¹

Type of project	Grand total	Security-wage workers					Non-security-wage workers
		Total	Unskilled	Intermediate	Skilled	Professional and technical	
All projects.....	1, 000	964	658	143	128	35	36
Highway roads and streets.....	1, 000	969	790	101	67	11	31
Public buildings.....	1, 000	958	483	161	298	16	42
Parks and other recreational facilities.....	1, 000	963	692	111	146	14	37
Conservation.....	1, 000	971	770	108	83	10	29
Sewer systems and other utilities.....	1, 000	968	698	154	104	12	32
Airports and other transportation facilities.....	1, 000	955	539	130	273	13	45
White collar.....	1, 000	954	228	292	254	180	46
Education.....	1, 000	947	47	106	343	451	53
Recreation.....	1, 000	949	100	354	338	157	51
Professional, clerical, and service.....	1, 000	956	279	311	225	141	44
Sewing.....	1, 000	977	802	117	46	12	23
Goods, other than sewing.....	1, 000	969	696	163	94	16	31
Sanitation and health.....	1, 000	963	679	147	119	18	37
Miscellaneous.....	1, 000	872	435	199	196	42	128

¹ Data apply to continental United States only.

PROBLEMS OF A STRANDED POPULATION: BRAZIL, IND.

THE defense program has focused attention on problems of increasing productive capacity and the supply of certain types of skilled labor required to produce aircraft, machine tools, and other essentials of the program. These developments need not obscure the continued existence of depression and unemployment in various industries and areas, for their problems are not solved even temporarily by expansion of defense industries. Worked-out mining regions, cut-over timber lands, and declining centers of the manufacture of specialized products for which there has been a failing market have left stranded populations and grave economic and social problems, untouched in many instances by expansion of the defense industries. Studies of some of these problem areas were made by the National Research Project of the Work Projects Administration, and among these was a survey of Brazil, Ind.¹ The study includes a background of the industrial history of the community and a special analysis of conditions in 1936, a recovery year.

¹ U. S. Work Projects Administration. National Research Project. Studies of the Effects of Industrial Change on Labor Markets, Report No. L-9: Employment and Unemployment in a Depressed Labor Market, Brazil, Ind., by Miriam E. West, Edward J. Fitzgerald, and George L. Bird. Washington, 1940. This report is one of a series by the National Research Project, under the direction of David Weintraub, on Reemployment Opportunities and Recent Changes in Industrial Techniques.

Industrial History

The region of Brazil, Ind., was at one time the center of a flourishing lumber industry. Before 1890, lumbering, supplemented by agriculture, formed the main basis of the prosperity of the region. During the last decade of the nineteenth century, lumbering there lost its importance because of the prevailing method of rapidly cutting over the area and making no provision for production on a sustained-yield basis. While the lumbering industry was declining, coal mining was expanding and was the main basis of the prosperity of the community up to about 1910. The coal-mining industry after that date began to decline, as did the metalworking industries that had grown up with coal mining. In the meantime, however, the clay deposits of the area were being developed, and the clay-products industry in part took the place of coal mining and the metalworking industries. The clay-products industry maintained a considerable degree of prosperity during the twenties, but the depression beginning in 1929 forced a great contraction of this industry. With its decline, unemployment increased rapidly, and in the absence of industries to take its place, the community was confronted by depression problems that failed to yield to the general stimulus of recovery.

The coal mines of Clay County, in which Brazil is located, produced 1,370,402 tons of coal in 1920, and employed 1,633 workers. The amount produced in 1936 was 1,077,917 tons, 21 percent less than in 1920, and the number of workers employed was 886, 46 percent less than in 1920. In the manufacture of clay products, Clay County, with establishments located in Brazil and Carbon, employed 1,481 wage earners in 1929, and this number fell to 140 in 1933, rising slightly to 263 in 1935. There were 10 clay-products establishments in 1929 and 6 in 1935. The rise of the clay-products industry in the Brazil area after the World War was an accompaniment of the building and construction boom of the twenties. The plants in Brazil made face brick and building tile, widely used in modern steel-framed, concrete-floored structures. The excellent railroad transportation facilities of the area enabled the establishments that made these products to expand their markets beyond the local area. The manufacture of clay conduits for telephone lines, much in demand during the twenties, maintained the local clay-products industry until 1929, after the passing of the peak of demand for face brick and building tile. When the demand for clay conduits fell off, Brazil was confronted by a grave situation, in which its main industry was subject to the extreme effects of the depression, without alternative industries to take up the slack.

Characteristics of Labor Market

The report points out that "in such a depressed-employment situation" interest attaches particularly to the characteristics and composition of the labor market in a year of general recovery like 1936.

What was the nature of the unemployment problem? How had it developed? What factors in the workers' equipment or experience were related to differences in their employment histories? What do their work histories tell of their attempts at adjustment? What, in the light of the answers to the above, is the nature of the reemployment problems?

This study was designed to answer these questions in as great detail as possible through an analysis first of the employment characteristics of the workers of Brazil and Carbon in the fall of 1936, and then of the detailed employment and unemployment records for 1926-36 of workers associated either with the important clay-products industry or with the community's other principal manufacturing and mining industries.

Although Brazil is a small community, its experiences may be viewed as typical of many communities, large and small, in every section of the country where depression and the long-term decline of industries have combined to leave stranded populations. The main results and conclusions of the survey of conditions in Brazil are summarized as follows by the Assistant Commissioner in his letter of transmittal of the study to the Commissioner of Work Projects.

This report shows that during a recovery year like 1936 unemployment was widespread in the community of Brazil. More than a third of the employables were unemployed, and almost half of the households with some employables had at least one member unemployed or employed only part time. This widespread unemployment and underemployment covered a variety of situations, each of which presents different problems for a relief administration.

In the first place, the lack of employment opportunities in the region had led to the creation of a large, untapped reservoir of labor—new workers who had never succeeded in finding even a first job. These constituted 6 percent of the employables in the community but accounted for almost a fifth of its unemployed. Further, there was evident a tendency toward the emergence of a sizable group of chronically unemployed persons. This was reflected in the high proportion of the unemployed who had been out of work for long periods. Of those previously employed in the community, who were unemployed in 1936, more than three-quarters had been without jobs for a year or more. A third had been continuously out of work for 5 years or more. Many of these were older workers. A large number of them were former clay workers who had been unable to find other employment in a labor market of restricted opportunity and large reserve forces, and had not been recalled to the clay-products industry. Others, from other industries, were workers whom the decline of the community's industrial life had gradually pushed into the unemployed group. The continued low level of activity in their own industries and their inability to find other work were transforming them into chronically unemployed persons.

In addition to these persons, there was a group who remained attached to one industry, even one plant, throughout their employment and unemployment. Because of an age, skill, or experience advantage these were the ones who were recalled whenever activity in their plant was resumed or expanded, but continued inactivity in a number of the plants meant heavy records of unemployment for many of the group.

Still another group in the community consisted of those workers, mostly the young, who had succeeded in entering actively into the labor market, but who had not made permanent connections with any one industry. Their youth enabled them to shift from one industry to another, and, as a result, they constituted a constantly fluctuating reserve for many industries. The continued low level of

activity was, however, reducing their chances of making any stable connection, and many of their number were chronically underemployed.

Finally, many workers, upon becoming unemployed, turned to self-employment, mostly in agriculture, small-scale mining, and trucking. The limited opportunities for gaining more than a bare subsistence by such attempts meant that this recourse to self-employment was for many workers a less than satisfactory adjustment.

In all, the situation that had developed in this depressed community—the widespread unemployment and underemployment, the inability of the younger workers to find places in the crowded labor market, and the increasing chronic unemployment of the older workers—presented a wide variety of social problems. Short of a tremendous expansion of local industrial activity, these problems can be met only by a relief and public work program calculated to care for the various types of unemployment that cannot be handled by existing security legislation.



LABOR CONDITIONS IN THE BALTIC STATES

MORE strict control of workers is indicated by laws recently enacted in Latvia and Lithuania.

*Forced Labor Service in Latvia*¹

The Latvian Government issued a law on May 31, 1940 providing for forced labor service in Latvia. All able-bodied citizens of both sexes from 16 to 60 years of age must participate "with all their bodily and intellectual abilities" in raising and promoting the defensive and economic strength of the State when called upon by the latter for any service.

On June 7, 1940, a supplementary law was enacted providing that in the future all applicants for vacancies at public offices must prove that they have worked in agriculture for not less than 3 months within the preceding 3 years. Furthermore, all persons who have entered public service within the last 5 years and who, by October 1, 1941, are unable to show at least 3 months' work in agriculture are to be dismissed from service.

*Registry of Skilled Workers in Lithuania*²

A law was passed on June 1, 1940, providing for registration of the skilled workers in Lithuania employed by shops and factories and those working independently, either as master craftsmen or craftsmen's helpers. All are to be required to pass an examination on their knowledge of and skill in their respective trades.

There is to be appointed a Craftsmen's Registrar who will supervise individual craftsmen and workshops. Under penalty of a fine up to 500 lits,³ these must supply the Registrar with information required

¹ Report of S. Walter Washington, American consul at Riga.

² Report of Basil F. Macgowan, American vice consul at Kaunas.

³ Lit—about 17 cents.

under the law. To protect old craftsmen of minority nationalities who might find it difficult to pass the required examinations, especially in the Lithuanian language, the Registrar may permit persons with good qualifications, who have engaged in their craft for more than 5 years, to continue their work if there is a labor shortage in their respective trades. Such persons are to be included in a special list filed in the Registrar's office, and they will retain their titles if they continue their work during an additional 10 years to the satisfaction of the Registrar.

The law applies to approximately 23,000 skilled workers in Lithuania.



LABOR POLICIES OF SPANISH NATIONALIST GOVERNMENT

THE general labor and social policies of the present Nationalist Government of Spain are contained in its Labor Charter of March 10, 1938, formulated before the close of the civil war. Later measures provide for the organization of the Ministry of Labor, the reorganization of the trade-unions, the establishment of labor courts, the development of a labor inspectorate, and the placement of demobilized wage earners.

*Summary of the Labor Charter*¹

The Labor Charter is prefaced by a preamble setting forth the fundamental concept of the nature of the new Spanish State and stating its objectives. According to this preamble, the State is described as (1) totalitarian and (2) syndicalist. In its syndicalist organization it is opposed to "liberal capitalism and Marxist materialism."

It is declared that labor is not to be regarded as a commodity; it is to be valued and given a dignified place in the State and must not be the object of bargaining incompatible with the dignity of the worker.

Capital is recognized as an instrument of production and as the source of profit and reserves, but the charter prescribes that the reserves must also accrue to the benefit of the worker. No attempt is made to apportion the proceeds of capital, the owner being entitled to a "just" share, and permitted reserves being an amount necessary for "stability" and the "improvement" of working conditions.

Private enterprise is recognized as a mainspring of the economic life of the country. The State undertakes, in general, to abstain from entering the field of production; but if it is considered that private initiative has failed or that it is necessary in the general interest the State may take over production.

¹ Data are from report of Leo J. Callanan, American consul at Málaga, Spain.

Private property is recognized as an individual, family, and social element within the framework of society. The State reserves to itself, however, the determination of injury to the common good by private property and the modification of the latter if deemed advisable.

POLICY TOWARD THE WORKER

The duty to work is declared to be not only moral but also social, and all Spaniards able to do so are to be required to perform this duty by taking part in some useful activity.

A living wage adequate to support the worker and his family with decency and dignity is promised. Sunday is established as a day of rest, and July 18th (the anniversary of the revolution) is designated as the "Holiday in Honor of Work." Furthermore, the observance of traditional religious holidays, civil holidays which may be prescribed, and days designated by the leaders of the revolution will be required of workers, without loss of pay, but with due attention to industrial needs. Workers will also be granted annual vacations with pay. For recreation and hours of leisure, the worker is promised cultural, military, and athletic activity through organizations to be established for the purpose.

Strikes are impliedly, although not directly, forbidden in the Labor Charter. A decree of a few months later (see section on labor courts) provides definitely for compulsory arbitration.

POLICY TOWARD BUSINESS

In the relations between employer and worker the State is to see that the former gives adequate remuneration and that the latter performs his duty, that the employee receives assistance and protection from the employer in return for fidelity and subordination, and that both are loyal to the State.

The granting of credit is to be controlled so as to benefit the small farmer, fisherman, and business man, and the honesty, competence, and industry of the subject are declared to be sufficient security.

The number of hours in a working day are to be regulated, child labor and night work by women abolished, and home work regulated. Married women are not to be employed in workshops and factories.

The workers' syndicates are to be controlled directly by the State, through the agency of the Spanish Traditionalist Phalanx (*Falange Española Tradicionalista*) and the Young Workers' Trade-Union Movement (*Juventud Ofensiva Sindicalista*).

POLICY TOWARD FARMERS AND MARITIME WORKERS

Prices of farm products are to be readjusted in order to assure to the farmer a minimum return which will enable him to pay a living wage to his workers.

Hygienic and living conditions of the towns and villages are to be improved in an effort to raise the rural standard of living.

The single paragraph referring to maritime workers is so worded as to apply, apparently, only to fishermen, since it undertakes to assist them in the handling of their products and in obtaining equipment needed for their work.

Organization of the Ministry of Labor²

A law of January 30, 1938, concerning the formation of the Government of Spain, provided that the former Ministry of Labor would be replaced by a Ministry for Trade-Union Organization and Action, responsible for the organization of a new system of industrial relations based on principles laid down in the Labor Charter. Subsequently, however, a decree of August 18, 1939, reestablished the Ministry of Labor, but transferred all duties connected with the organization of trade-unionism to the Trade-Union Section of the Spanish Phalanx. The composition of the new Ministry of Labor, according to the decree of August 18, 1939, includes an under secretariat and four general sections to deal, respectively, with labor questions, the administration of labor law, welfare and social insurance, and statistics. All the official services, organs, and institutions attached to the Ministry for Trade-Union Organization and Action were transferred to the new Ministry of Labor, except those which, in accordance with the decree, were transferred to the Trade-Union Section of the Spanish Phalanx.

Reorganization of Trade-Unions

The first step in the general reform of the industrial-relations system was taken by a decree of April 21, 1938. This decree required existing trade-unions in each Province to affiliate with the central organizations directly attached to the Ministry for Trade-Union Organization and Action, each central organization to be administered by a delegate chosen by the Minister from among members of the Phalanx. The National Trade-Union Organization was to keep in constant touch with the Phalanx. All existing trade-union organizations were required to submit their rules and regulations for approval by the Minister.

The main functions of the National Trade-Union Organization are (a) to undertake studies and perform other duties assigned to it by the Minister in connection with trade-union organization, and (b) to carry out other duties delegated to it by the Government in connection with problems of a social or economic character.

The formation of trade-unions or associations for the protection of trade or class interests is forbidden.

² Data on organization of the Ministry of Labor, reorganization of the trade-unions, and establishment of labor courts, are from *Industrial and Labor Information*, November 27, 1939 (pp. 242-244).

A decree of July 31, 1939, to approve the amended rules of the Phalanx, defined in the following terms the part to be played by the National Political Movement in the administration and supervision of the trade-unions:

The Spanish Phalanx and the Young Workers' Trade-Union Movement shall create and maintain the trade associations required for the organization of labor, production, and the distribution of property.

The directors of the trade-union organizations shall be chosen from the ranks of the Phalanx, and shall be confirmed in their appointment by the heads of the Phalanx, so as to make sure that trade-union organizations remain subordinate to national interests and imbued with the State's ideals.

The national administration of the trade-unions shall be entrusted to a single militant Phalangist, and their internal organization shall be based on grades, as in a disciplined army.

Under legislation of September 23, 1939, the property of the former trade-unions was transferred to the Spanish Phalanx.³

Establishment of Labor Courts

An order promulgated May 13, 1938, established labor courts on a temporary basis. The joint labor boards and industrial courts were abolished, and their judicial functions were transferred to labor magistrates. In areas where there is no labor judge, their duties are exercised by civil judges of first instance acting as labor judges.

Under this order the procedure for the settlement of disputes is the same as that laid down by the Labor Code of 1926 for industrial courts sitting without a jury, subject, however, to the condition that compulsory conciliation procedure must be tried and an award given at one and the same sitting. The labor judges may call on the services of experts, who will be appointed by the central trade-union delegate.

An appeal against the findings of the labor judge may be lodged only in accordance with the conditions, procedure, and time limits established in the Labor Code. The order also maintains the procedure for a special appeal for review of the case, as laid down in the Labor Code.

The functions of the joint boards for the regulation of general working conditions devolve on the labor delegates, who are to exercise them in accordance with formalities to be laid down in future regulations. The labor delegates are also to take over the disciplinary, advisory, and statistical duties assigned to the joint boards by a law of November 27, 1931. Inspection duties are to be left to the labor inspectorate.

The Minister for Trade-Union Organization and Action (at present the Minister of Labor) is to appoint the labor magistrates on his own initiative. (During 1939 labor judges were appointed in the principal cities of Spain, including Madrid, Barcelona, etc.)

³ For an account of the law of January 26, 1940, which further carries out the principles given above, see *Monthly Labor Review*, June 1940.

A decree of December 15, 1938, as amended by an order of February 6, 1939, abolished the joint labor boards for the railways and transferred their functions to the labor judges.

Finally, a decree of June 15, 1939, annulled all measures taken by the labor magistracy after July 18, 1936, in the zones not then under the jurisdiction of the National Government, and established rules for the hearing of outstanding appeals against awards given by the joint boards before that date.

*Extension of the Labor Inspectorate*⁴

A decree of March 19, 1938, empowered the Ministry of Labor to appoint temporarily six inspectors-general of labor (a) to supervise the activities of the provincial labor authorities, and for such purposes to obtain all necessary information from the labor delegates and the labor inspectors; (b) to carry out inspections in the labor areas and centers under their jurisdiction, and to bring to the notice of the Ministry all infringements of the labor regulations; and (c) to carry out any other duties entrusted to them by the Ministry.

In the exercise of their duties, the inspectors-general of labor enjoy the same rights and prerogatives as those conferred on provincial labor delegates by the law of May 13, 1932. The provincial labor authorities are to provide the inspectors-general with the staff and equipment required for the performance of their duties. The traveling expenses of the inspectors-general are to be defrayed by the State and their salary is set at 12,000 pesetas a year.

Reemployment of Demobilized Wage Earners

Two legislative decrees issued on October 14, 1938, and May 16, 1939, respectively, made it compulsory for all enterprises and employers to inform the Workers' Employment Service of all vacancies in their establishments, which were to be offered in the first place to workers demobilized from the National Army. A decree of April 1, 1939, establishing rules for the demobilization of industry and fixing the procedure to be followed for the dismissal and engagement of labor, also provided for priority of reengagement for ex-combatants and the families of war victims.

⁴ Data on the extension of the labor inspectorate and the reemployment of demobilized wage earners are from Industrial and Labor Information, December 4, 1939 (pp. 269-270).

Industrial Relations

UNION AGREEMENTS IN SHIPBUILDING ¹

THE greater part of the shipbuilding industry, including the largest shipyards in the country, is concentrated on the Atlantic Coast. Within the last few years the shipbuilding union of the Congress of Industrial Organizations has signed agreements with about half of the major Atlantic Coast companies, the others not being covered by union agreements. A number of smaller shipyards on the Atlantic Coast are under agreement with either American Federation of Labor or C. I. O. unions, as are also the important shipyards on the Gulf and the Pacific coasts. Unions affiliated with the A. F. of L. have signed agreements with some of the Great Lakes companies as well.

The A. F. of L. production workers in shipbuilding and ship-repair yards are organized by the appropriate craft unions. These unions generally are affiliated in each locality with a metal trades council, which coordinates the separate craft unions for collective-bargaining purposes. Many of the A. F. of L. agreements are negotiated and signed by the local metal trades council; incorporated as a part of the agreement in some cases are supplemental agreements of the various craft unions, covering their particular working conditions and work rules. One of the unions affiliated with the metal trades councils—the International Brotherhood of Boiler Makers, Iron Ship Builders and Helpers—sometimes signs separate agreements with the shipyards. The Industrial Union of Marine and Shipbuilding Workers of America is the C. I. O. union which organizes the production employees in shipyards (with the exception noted in footnote 3). In addition to these unions for the production workers, there are separate organizations of supervisory and technical employees.

All of these unions organize in both the Government and privately owned shipyards. In the Government yards there is some duplication of membership between the craft and industrial unions and the various Federal employees' unions which also organize these workers. There are no signed agreements with unions in the Government yards, but collective bargaining has been carried on for a period of years and special procedures have been worked out for the determination of wage rates in accordance with those prevailing in the community.

The 28 agreements described in this article were those in effect August 1940 and cover production workers only. The names and location of the companies covered are listed below under the name

¹ Based on the file of current union agreements in the Bureau's Industrial Relations Division, August 1940, and other sources.

of the union organization which negotiated the agreement. In the discussion which follows, only the more important companies are mentioned by name.

Metal Trades Councils (A. F. of L.)

Great Lakes: Lake Erie Shipbuilding Co., Toledo, Ohio.

Gulf Coast:

Tampa Shipbuilding & Engineering Co., Tampa, Fla.

Ingalls Shipbuilding Co., Pascagoula, Miss.

Pennsylvania Shipyards, Inc., Beaumont, Tex.

Lykes Bros., Ripley Steamship Co., Galveston, Tex.

Todd-Galveston Dry Docks, Inc., Galveston, Tex.²

Pacific Coast:

Bethlehem Shipbuilding Corporation, San Francisco, Calif.³

Western Pipe & Steel Co., San Francisco, Calif.

Joint agreement covering six repair yards in San Francisco, Calif.:

Columbia Machine Works & Ship Repair Shop.

General Engineering & Dry Dock Co.

Matson Navigation Co.

Moore Dry Dock Co.

Pacific Drydock & Repair Co.

United Engineering Co., Ltd.

Seattle-Tacoma Shipbuilding Co., Seattle, Wash.

Joint agreement covering several companies in Seattle, Wash.:

Ballard Marine.

Barbee.

Blanchard Tregoning.

Fishing Vessels Owners' Association.

Lake Union Dry Dock.

Lake Washington Shipyard.

Maritime Shipyards.

Olsen & Sunde.

Seattle Shipbuilding.

Todd's Shipyard.

Winslow Marine Railway.

Central Labor Council (A. F. of L.)³

Pacific Coast:

Consolidated Steel Corporation of Maywood, Calif. (covering operations in Arizona, California, Idaho, Nevada, Oregon, Utah, and Washington).

Various A. F. of L. Unions⁴

Great Lakes:

American Shipbuilding Co. (covering yards at South Chicago, Ill.; Buffalo N. Y.; Cleveland, Lorain, and Toledo, Ohio; Superior, Wis.).

² Written statements of terms of employment, negotiated by the unions and the company but not formally signed.

³ The signators were the Metal Trades Department (A. F. of L.), the Building and Construction Trades Department (A. F. of L.), the International Unions concerned, the Los Angeles Central Labor Council, the Los Angeles Building and Construction Trades Council, the Los Angeles Metal Trades Council, and the Long Beach Building and Construction Trades Council.

Since this article was written, the National Labor Relations Board held an election among the employees of the Maywood plant of the Consolidated Steel Corporation and has certified as the sole bargaining agent the Amalgamated Association of Iron, Steel and Tin Workers, through the Steel Workers' Organizing Committee (C. I. O.), which received a large majority of the votes cast.

⁴ Not included in the article is an agreement with T. H. McLaughlin, Seattle, Wash.

Boilermakers (A. F. of L.)

Atlantic Coast: Charleston Shipbuilding & Dry Dock, Charleston, S. C.

Great Lakes:

Toledo Shipbuilding Co., Toledo, Ohio.

Manitowoc Shipbuilding Co., Manitowoc, Wis.

Pacific Coast:

Supplement to joint agreement between six repair yards and Metal Trades Council, San Francisco, Calif. (see above).

Joint agreement with four companies in Portland, Oreg.:

Albina Engine & Machine Works.

Commercial Iron Works.

Steel Tank & Pipe Co. of Oregon.

Willamette Iron & Steel Works.

Marine & Shipbuilding Workers (C. I. O.)⁵

Atlantic Coast:

Pusey & Jones Corporation, Wilmington, Del.

Maryland Dry Dock Co., Baltimore, Md.

New York Shipbuilding Corporation, Camden, N. J.

Federal Shipbuilding & Dry Dock Co., Kearney, N. J.

Kensington Shipyards & Dry Dock Corporation, Philadelphia, Pa.

Gulf Coast:

Alabama Dry Dock & Shipbuilding Co., Mobile, Ala.²

Todd-Johnson Dry Docks, Inc., New Orleans, La.

Pacific Coast:

Craig's Ship Yard, Long Beach, Calif.²

Bethlehem Shipbuilding Corporation, San Pedro, Calif.²

Los Angeles Dry Dock, San Pedro, Calif.²

Duration and Renewal of Agreements

Fifteen of the 28 agreements are in effect for a period of 1 year. The original term is less than 1 year in 3 agreements and 16 months in another. Seven (including Todd-Johnson, Todd-Galveston, and the two Bethlehem agreements) continue for an indefinite period. The remaining 2 agreements continue in existence until the shipbuilding contracts noted in the agreements are completed.

Although six agreements, including the two with Bethlehem, make no provision for renewal, the others are renewed automatically unless notice of intention to change or terminate the agreement is given by one of the parties. About half are automatically renewed for succes-

¹ Written statements of terms of employment, negotiated by the unions and the company but not formally signed.

² Not included in the article are agreements with the following companies:

Atlantic Coast:

Baltimore—Hercules Co.

Bayonne, N. J.—Robert Armour Co.

Camden, N. J.—James B. MacGarvie Co.

Hoboken, N. J.—Marine State & Supply Co.; Mitchell Corporation.

Keyport, N. J.—C. C. Galbraith & Son, Inc.

Brooklyn, N. Y.—Acme Scaling Co.; Deck & Engine Repair Co.; Hamilton Pipe & Boiler Covering Co.; Pier Machine Works, Inc.; P. S. Thorsen & Co., Inc.; Salvage Process Corporation.

New York City—Acme Tank Cleaning Process Corporation; Grace Line, Inc.; Stephen Ransom, Inc.;

United States Lines Co.

Staten Island, N. Y.—Cairney Engine & Boiler Works, Inc.

Philadelphia, Pa.—A. Moe & Co., Inc.; Daniel Dwyer Co.; National Boiler & Cleaning Co.; Pioneer

Engineering Co., Inc.; The Tioga Engineers, Inc.; General Engineering Co.

Gulf Coast:

New Orleans, La.—Gulf Service & Contracting Co.; Marine Welding, Scaling & Sales Co.; M. J. Walsh

Boiler Scaling Co., Inc.

sive yearly periods, while the others are renewed for an indefinite period until notice is given at some later date. In addition, three agreements with definite termination dates (among them the Consolidated and American agreements) provide that the agreement is to continue beyond the expiration date at least until all shipbuilding contracts started during the term of the agreement are completed.

Most of the agreements specify the amount of advance notice which must be given the other party when there is a desire to change or terminate the agreement. The usual notice period is 30 days, although periods varying from 7 to 70 days are required in a few cases. The agreements of the Marine and Shipbuilding Workers' Union with the New York Shipbuilding Corporation and the Federal Shipbuilding & Dry Dock Co. require that notification be accompanied by a detailed written statement of the desired changes. Six agreements also require that a conference be held to discuss proposed changes not later than 10 days after receipt of notice, and six others set time limits varying from 3 to 45 days.

Union Status

In all but six agreements the unions are recognized as the exclusive bargaining agency for the workers coming under their jurisdiction. In the San Francisco yard of the Bethlehem Shipbuilding Corporation and in one other agreement the unions represent their members only. There is no specification as to whether recognition is exclusive or for members only in the agreements covering Todd-Galveston, Los Angeles Dry Dock, Bethlehem at San Pedro, and one smaller company.

Eleven A. F. of L. agreements, including those covering Consolidated⁶ and Tampa Shipbuilding, provide for a closed union shop.⁷ Two C. I. O. agreements—Los Angeles Dry Dock and Bethlehem at San Pedro—provide for a preferential union shop. The other agreements make no provision concerning union membership.

Four of the closed-shop agreements do not regulate the hiring of new employees, merely requiring that all new employees must join the union if they are not already members. Five require that new employees be secured from the union, while two state only that the applicants sent by the union shall be given preference. (The latter provision is also included in the two preferential-shop agreements.) If the union is unable to furnish needed men within a reasonable time, usually 24 or 48 hours, the company may employ directly, but such new help must first secure clearance from the union and then join the union within a specified period, 10 days or 2 weeks.

Specific prohibitions of discrimination for union activity are to be found in most of these agreements. In a few agreements union activity on company time and property is specifically forbidden.

⁶ See footnote 3, p. 598.

⁷ Since this article was written, the C. I. O. signed a new agreement with the Kensington Shipyards and Dry Dock Corporation providing for a closed union shop and other changes.

Union representatives who are not employees are denied access to the yards in only one agreement, but are specifically granted access only in six, one of which is Consolidated. In three of these the company must give permission in advance and in one the company may send someone to accompany the union representative. In Federal Shipbuilding, Pusey & Jones, and Maryland Drydock, union committeemen investigating a grievance have access to other departments in the yard, upon advance notification to the management.

The right to use the company bulletin boards is specifically authorized in only two agreements—in Federal Shipbuilding if notices are approved by a designated company representative, and in another company if the notices relate to “meetings, dues, entertainment, health and safety.”

Wage Payments

Wage rates for the various occupations are frequently negotiated supplementary to the main agreement. Since many of the agreements do not include such supplementary wage rates, no analysis of wage rates is possible.

The most common method of wage payment in the industry is on the basis of time rates, although several companies, including a few of the largest, pay piece rates. Three of these, however, (New York Shipbuilding, Pusey & Jones, and Tampa) guarantee minimum hourly earnings. In the New York Shipbuilding agreement piece rates are subject to review and adjustment on application by an individual or the union. Before work is started on a contract, a list of piece rates is to be made available to the union and the individual employees concerned. The New York Shipbuilding agreement specifically forbids reduction in the piece rates except when changes are made in the original specifications. In the time-rate agreements, separate hourly rates are established for each of the many occupations in the yards.

Eight agreements provide for the reopening of the question of wage rates during the life of the agreement. In Los Angeles and two other agreements, wages can be reopened at any time, one requiring 30 days' notice. The Todd-Johnson agreement permits upward revisions on 45 days' notice if it can be shown that competitors on the Gulf pay higher wages, and another Gulf coast agreement authorizes new wage negotiations 7 months after the agreement is signed if the United States Director of Conciliation considers revision warranted.

If war causes a rise in cost of living, the Pusey & Jones agreement permits reopening of the wage scale by the union. In the New York Shipbuilding agreement the wage scale may be reopened 9 months after the signing of the agreement on written notice from the union, if war is declared. The agreement becomes null and void if no accord is reached in 30 days. The Kensington agreement contains a similar clause.

The Western Pipe & Steel agreement refers to contracts awarded to the company by the United States Maritime Commission, which provide supplemental payments to the company for increased labor costs. Under the following provision the company agrees to pass on to its employees the entire amount of such payments:

Western Pipe & Steel Co. does hereby agree to pay to its employees engaged in shipbuilding in its South San Francisco plant, in addition to minimum wages fixed under the terms provided for herein, the entire amount which will accrue to the company for the increased labor cost under the provisions above quoted [from the contract between the company and the Maritime Commission]; that on or about April 1, 1940, and at approximately quarterly periods thereafter during the construction of said five ships, the company will confer with Bay Cities Metal Trades Council to consider any indexes or percentages that may have been sent down by the Commission to the company and also to consider the indexes or methods that might reflect more equitably the increases in cost of labor with a view of securing an increased labor cost to be passed on to the employees, as hereinabove provided, in keeping with any possible increased cost of living which may then be apparent. The company will cooperate with the Bay Cities Metal Trades Council in an effort to cause the Commission to use such index or method as to reflect equitably the increases in costs of labor under the shipbuilding contract. In no case shall wages be less than in the present agreement.

All but seven of the agreements provide for the payment of a minimum amount if employees are required to report but find no work available or if work is actually begun but a full shift is not completed. Nine agreements guarantee at least 4 hours' pay in either case, five grant 2 hours' pay, and another a full day's pay. Only 1 hour's pay is guaranteed in the Federal and Tampa agreements. Four agreements guarantee 2 hours' pay if no work is available and 4 hours' pay if work is started; two grant a full day's pay if work is started after lunch. In seven agreements, however (including Tampa, Maryland Drydock Consolidated, and American), the company is exempted for causes beyond its control, such as inclement weather or failure of a vessel to dock for repairs on schedule.

Extra pay is frequently provided for certain types of work, such as especially dirty work in tanks and boilers. Some agreements provide that the company shall pay for cleaning of clothes worn while doing such work. Employees required to work away from the shop are usually paid their regular rates while traveling and their transportation, as well as their board and lodging if they must stay away from home.

Under the New York Shipbuilding and Kensington agreements employees are guaranteed the benefits of any Federal action pertaining to wages in the industry:

Should any Federal legislation, or regulation under Federal legislation, applying to the shipbuilding industry as a whole become effective after the date of the execution of this agreement which * * * would be more favorable to the employees than the wage structure in this yard, then the legislation or regulation is to be made applicable * * * irrespective of any exceptions or exemptions granted by the legislation or regulation to wages arrived at as a result of collective bargaining * * *.

Hours of Work

An 8-hour day, 40-hour week is the prevailing working schedule in most of the shipbuilding agreements. The agreements covering the Los Angeles Dry Dock and Bethlehem yards at San Pedro establish a 40-hour week as the maximum average over a 4-week period. In these agreements a 5½-day schedule is also permitted. Two Gulf coast agreements provide that the 40-hour week will not be put in effect until approximately 6 months after the signing of the agreement. In one of these a return to the longer workweek is to be considered in the event of a "national emergency" or increased production necessitating a third shift. A workweek of 44 hours is provided in the agreements with Tampa Shipbuilding and one other Gulf-coast yard. One company regularly on an 8-hour day, 40-hour week schedule requires only 7 hours per day and 39 hours per week for ship-repair work. In one agreement regular maintenance men who must work on Saturday are paid time and a half for that day and get Sunday and Monday off.

Night Shifts

Many companies are now operating on a 2- and 3-shift basis. Provisions governing shift practices are therefore to be found in most agreements. Four agreements prohibit entirely the use of a third shift, while one prohibits a third shift or both night shifts for certain skilled crafts. One agreement reduces the hours on the second shift to 7½ and on the third to 7, while providing a full day's pay. The Consolidated agreement similarly reduces hours on the third shift to 7½ for all employees and on the second shift for certain skilled crafts. In several agreements employees are permitted to transfer to the day shift in accordance with seniority or after 3 months on the night shift and notice to the foreman. A few agreements prohibit repair work at night away from the yard unless the job is of at least 10 days' duration. In one agreement employees required to go out on sea trials work alternate 6-hour shifts, receiving overtime pay for the second shift each day. Employees working on either the second or third shift are occasionally given extra 15- or 20-minute rest periods.

Extra pay is required for employees on the night shifts in all the agreements except those covering Consolidated, Todd-Galveston, Tampa, Bethlehem at San Francisco, and six smaller companies. Consolidated, however, gives full pay for 7½ hours of night work. The night bonus is 10 percent in Los Angeles Dry Dock, Bethlehem at San Pedro, and 5 others. Five percent is paid by New York Shipbuilding, Federal, Pusey & Jones, Maryland Drydock, and American, although the last company guarantees the bonus only on repair work. Todd-Johnson and one other company pay 5 percent for the second shift and 10 percent for the third. The other three companies paying

night bonuses guarantee 5 cents more per hour, and two of them pay 25 cents more per hour on the third shift.

Overtime Rates

Thirteen of the agreements (including those covering Todd-Johnson, Todd-Galveston, Tampa, and Bethlehem in San Francisco) provide for a double-time rate for work beyond the regular 8-hour day, 40-hour week. In addition, Consolidated provides double time for new ship construction, while American and one other provide double time for repair work only. There are minor exceptions to the double-time rate in a few agreements for such work as maintenance, launching and docking, etc.

Time and one-half is the rate paid for overtime work in the remaining 12 agreements, including those covering Federal, New York Shipbuilding, Pusey & Jones, Maryland Drydock, Los Angeles Dry Dock, and Bethlehem at San Pedro. Three of the time-and-a-half agreements (Bethlehem at San Pedro, Los Angeles Dry Dock, and one other) apply the double-time rate after 4 hours of overtime in any one day; the Maryland Drydock and another agreement apply the double rate after 8 hours' continuous overtime. The Federal Shipbuilding and Maryland Drydock companies pay double time for work beyond 8 hours on Saturday, while another pays double time for all repair work on Saturday.

A few agreements apply the overtime rate whenever employees are required to work through their regular lunch period. Several agreements provide for the payment of the overtime rate whenever employees are recalled before they have had 8 hours of rest. Three Marine and Shipbuilding Workers' agreements specify that all overtime work is to be equally divided among the workers within the craft involved. One agreement, which prohibits a third shift, permits 24-hour operation by working the first and second shifts an equal amount of overtime.

One agreement prohibits overtime work if unemployed men are available, and another prohibits overtime for one craft unless all the craft is employed.

Holidays and Vacations

None of the agreements grant holidays with pay, but all allow the day off for a specified number of holidays. Three Pacific coast agreements recognize 11 holidays and one, 10 holidays. Four agreements grant 9 holidays, while eight agreements recognize 8 holidays and six authorize 7 holidays. The others have 6 holidays, with the exception of one on the Gulf coast providing only 4.

The holidays observed under nearly all the agreements are New Year's, Memorial Day, Fourth of July, Labor Day, Thanksgiving,

and Christmas. In addition, many of the agreements call for the observance of Washington's Birthday and Armistice Day. The other holidays recognized are election days, religious holidays, and State holidays. Under most agreements the holiday is not lost if it falls on Sunday, but the day recognized by the State or Nation is to be taken off instead.

Work on Sundays and holidays is paid for at twice the regular rate, except maintenance and repair work in one agreement and new construction in another. Pay at two and a half times the regular rate for work over 8 hours on holidays is provided for in the Federal Shipbuilding agreement. Work on Labor Day is virtually prohibited by various provisions requiring a payment of four times the regular rate for work on that holiday, permitting work only in extreme emergencies or to save life and property, or requiring a permit from the union before any work can be done.

One-week vacations with pay are provided in six C. I. O. and two A. F. of L. agreements. The Kensington and Todd-Johnson agreements grant a week's vacation after 750 and 1,500 hours of service, respectively, while a year's service is required in the Pusey & Jones, Maryland Drydock, and the San Francisco repair yards agreements. Three years' service is required in Federal and New York Shipbuilding and 5 years' in the Manitowoc agreement. In three agreements more limited vacation rights accrue to those employees with insufficient service to receive the full week—3 days' vacation for employees with more than 1,000 hours but less than 1,500 hours of service in Todd-Johnson, one-half day for each month in Pusey & Jones, and 1 day a year in the Manitowoc agreement.

Pay for vacations is based on the employee's hourly rate or, for a piece worker, on his average earnings over a specified period. The New York Shipbuilding agreement provides for vacation pay based on 2 percent of the employee's yearly earnings. The Pusey & Jones agreement requires that each employee shall receive his vacation pay before starting on his vacation.

An employee's vacation rights are lost only by discharge or failure to report back in a reasonable time when recalled for work after a lay-off or, in one case, for sickness of more than 3 weeks. One agreement permits employees on lay-off to draw earned vacation pay.

None of the agreements require that the vacations be taken at any particular time, but five leave it to the company to determine the time of vacations. In Federal Shipbuilding the employees are authorized to accept pay in lieu of the actual vacation, if taking the vacation would interfere with the national defense program.

Seniority

All of the agreements, except seven signed by craft unions, give some recognition to seniority. In all cases seniority is on an occupa-

tional or departmental basis. Seniority is counted from the first date of employment, but in two cases the seniority of new employees is not recognized until they have served a specified probation period. An employee's seniority standing is generally lost only after an extended period of lay-off, on discharge, or on failure to report back within a specified time when recalled after a lay-off. Seniority is usually retained during absences resulting from illness or disability. Some agreements require that the company must be notified of the illness within a specified time and one requires the furnishing of a doctor's certificate every 30 days. Several provide that seniority is lost if other employment is accepted during a lay-off, without permission of the company.

Six agreements specifically require that the lists of employees' seniority standing be made public. Maryland Drydock and one other agreement provide that the list shall be posted on the bulletin boards, while two (including New York Shipbuilding) require that copies of the list shall be furnished the union. The Pusey & Jones agreement contains both provisions. In Federal Shipbuilding the seniority list is open to inspection by the union shop committeemen during working hours.

Four C. I. O. agreements protect the seniority of employees who volunteer or are drafted into war service as follows:

Any employee with 1 or more years' service for the corporation, who volunteers for, or has been drafted into war service for the United States, shall retain his seniority standing, and shall have the time spent by him in such service for the United States added to his length of service in the craft and classification within said craft in which he was employed by the corporation at the time of his entry into war service. Any such employee who, within 30 days of his release or discharge from such war service, applies for reemployment, shall be rehired in accordance with the provisions of this contract.

Lay-Off and Reemployment

Work sharing within a department or occupation is required to some degree in 3 A. F. of L. and 7 C. I. O. agreements. Four agreements divide work only as long as a minimum amount of work is available. The minimum is 32 hours' work per week in the Pusey & Jones agreement, 30 hours in the Federal, and 24 hours in the New York Shipbuilding and Maryland Drydock agreements. The Todd-Johnson agreement provides for approximately equal division of work over a 3-month period, but stipulates that equal division cannot be expected on repair work. The employees' time records are to be made available to the union as an aid in carrying out this provision of the agreement. The others merely provide for equal division of available work "as nearly as practicable," although one further restricts work sharing to employees of equal ability. Four of these limit the work sharing to those with more than a year's service, those with less than

a year's service being laid off before hours are reduced. Another limits the work sharing to the "older employees."

If lay-offs are necessary after work has been shared within the limitations described above, seniority is to govern in the Federal, New York Shipbuilding, Pusey & Jones, and Maryland Drydock agreements, although the last-named permits hiring out of order if unforeseen circumstances develop. One other agreement provides that necessary lay-offs shall be according to seniority, if ability and skill are equal. Reemployment is to be in inverse order to lay-offs in all of these agreements. The other five agreements with work-sharing provisions make no mention of the procedure to be followed in lay-offs, but four (including Todd-Galveston and Todd-Johnson) provide that former employees must be given preference in reemployment.

Five agreements, among them Tampa Shipbuilding and Bethlehem in San Pedro, provide that, if work is slack, employees are to be laid off solely on the basis of occupational or departmental seniority. The American, Los Angeles Dry Dock, and three other agreements provide for some consideration of seniority in lay-off and reemployment. The application of seniority is least restricted in the Los Angeles and one other agreement, which merely require that the senior man must be competent. In American, seniority applies "subject to the ability, physical and mechanical fitness of the senior man." Another provides for seniority "with due respect to ability, efficiency, and physical condition, as determined by the yards," and the fifth applies seniority if "training, ability, efficiency, and place of residence of employees involved is relatively equal." The others (including Consolidated and Bethlehem in San Francisco) make no mention of the basis of lay-offs and reemployment.

Several agreements require that advance notice of lay-offs shall be given to employees. The notice period varies from 16 to 40 hours. An option of 20 hours' dismissal pay in lieu of notice is given to the New York Shipbuilding Corporation.

Under some agreements an employee can be transferred from a slack department to a department supplied with work only if the regular employees in such department are working full time. Four prohibit transfers to another department if the transfer would prevent the reemployment of men holding seniority in that department. In addition, the New York Shipbuilding agreement prohibits transfer of semiskilled workers to unskilled jobs if lay-off of unskilled workers would result. This agreement also gives reemployment preference to former employees of a department, and prohibits transfers as long as anyone who has worked in the department during the last 4 years is out of work.

Apprentices

In the shipyards much of the work is highly skilled and the question of the availability of skilled labor is an important one. Most of the agreements do not contain rules governing apprentices, although some indicate that the rules and regulations established in the union constitutions and bylaws will be followed.

Three of the agreements include some general provisions on apprentices and five include more specific provisions. In Federal Shipbuilding the present company program is continued, but a joint committee is established to make recommendations on the number of apprentices to be permitted. In addition to four company officials, the company appoints to the committee four union representatives, selected from a panel of 10 names submitted by the union. All of the union representatives must have worked for the company at least 5 years. The Maryland Drydock Co. has agreed to train apprentices and provide opportunity for men to learn the more skilled jobs. A joint union-employer advisory committee is established to develop the apprenticeship program. The American Shipbuilding agreement provides for the subsequent negotiation of rules governing apprentices.

The agreements with New York Shipbuilding, Tampa Shipbuilding, Todd-Johnson, and two smaller companies provide in some detail concerning apprentices. The ratio of apprentices to journeymen is 1 to 5 in all but New York Shipbuilding, where the number is based on the estimated average man-load for the next 3 years in each department. The term of apprenticeship is 4 years in all five agreements. In one agreement an exception is made for welders' apprentices, one of whom may be employed for each journeyman, to serve a period of nearly 2 years.

Two agreements specify the age limits for beginner apprentices, 17 to 21 years in one case and 18 to 25 in another. In one of these, half of the apprentices must be selected from among the helpers who have been employed in the yard at least a year. Such helpers are required to serve only 3 instead of 4 years of apprenticeship.

Starting rates for apprentices are specified in only a few agreements, although several provide for periodic raises. The apprentice rates are usually increased every 6 months until the journeyman's rate is reached; one agreement establishes increases at 4-month intervals.

Apprentices are sometimes prohibited from doing certain work until the last year of apprenticeship, from working on outside work unless accompanied by a journeyman, and from working overtime or on the night shifts.

The apprentice-training system at the New York Shipbuilding Corporation⁸ has been developed over a number of years by the union and management acting through a joint apprenticeship committee. The major features of this system are: (1) Apprentice-training courses in vocational schools, the expense of which is partly paid by the company, on the basis of conduct and attendance; (2) written and oral examinations for apprentices; (3) the last 6 months of the training period is elective, so that the apprentice can specialize in the phase of the trade for which he has aptitude; (4) the joint apprentice committee has full charge and final decision on the question of hiring and firing apprentices. Union representatives have the right to consult the supervisor in each department to check on the training program.

Health and Safety

The Consolidated and American agreements authorize the requirement of physical examinations at periodic intervals, whereas two others specifically prohibit such examinations. Both the Consolidated and American agreements, however, specify that no maximum age limit may be set by the company.

Most of the agreements require that all shops be kept in a sanitary condition, with buildings well ventilated. Washrooms, lockers, shower baths, and cool drinking water are specifically called for in several agreements. Protective devices must be supplied by the companies. Several agreements require the presence of first-aid service at all times, and one authorizes the shop steward to care for injured men, guaranteeing his regular pay during the time spent on first-aid work.

Committees on safety and health are created in three agreements. In Federal Shipbuilding there is an advisory committee, composed of three union and three company representatives. The union representatives are appointed by the company from a panel of 10 names submitted by the union. All of these must have worked for the company at least 3 years. One of the duties of the committee is to conduct a monthly tour of inspection during working hours. The Pusey & Jones agreement establishes a joint committee with five union representatives and the company's safety committee. The joint committee is to meet once a month and make recommendations to the plant engineer. In Maryland Drydock a committee of two union and two company representatives and the company physician is to study disability cases and advise the company on necessary adjustments. The committee's decisions may be appealed through arbitration.

⁸ From the union paper, the Shipyard Worker, October 20, 1939.

Adjustment of Disputes

There is no single predominant pattern of grievance adjustment procedure in the shipyards. Three agreements merely provide for negotiations between the employee representatives and the company, while 15 establish no recourse beyond the calling in of outside union representatives. One agreement requires that the United States Conciliation Service be called in. Only 9 of the 28 agreements provide complete machinery for the adjustment of disputes, including impartial arbitration.

In contrast to industries where the adjustment machinery is more complete, only 7 of these agreements prohibit strikes and lock-outs entirely during the life of the agreement. Two prohibit strikes and lock-outs under certain circumstances, and 11 until the grievance machinery has been exhausted. Eight of the agreements place no restrictions on strikes and lock-outs.

Several of the agreements specify in detail the various kinds of work stoppages which are prohibited. Four agreements, however, specifically give the union members the right to refuse to do struck work, one of these applying only to strikes approved by the metal trades council. Three other agreements give employees the right to refuse to pass through picket lines. On the Pacific coast, the A. F. of L. metal trades convention in February 1940 agreed that "there will be no cessation of work because of any jurisdictional dispute which may arise." To carry out this policy the unions agreed to ignore any picket line established in the course of a jurisdictional dispute.

None of the agreements establish special procedure for discharge cases, although three require the discharged employee to appeal his case within a specified period of time. Several of the agreements give a detailed list of reasons justifying discharge; others merely require that any discharge be for "good cause." Back pay is generally granted to any employee found to be unfairly discharged, but one of the agreements limits the amount of back pay to 5 days.

In all agreements the initial handling of grievances is the responsibility of the shop or craft stewards and shop committees representing each occupation or department. Usually there is also a general committee, with representation for each department. In smaller companies there may be only one shop committee for the entire yard. A few agreements limit the size of the shop or craft committee to three and the general yard committee to five, with only one representative of each craft on the committee. When a grievance arises, an employee usually presents his case to his steward or shop committee, which in turn takes the matter up with the foreman. In the American agreement, however, the employee must first take up his grievance alone with the foreman and in four agreements (including Maryland Dry-

dock, Federal, and Pusey & Jones) the aggrieved employee must accompany the shop steward to the foreman. Failing adjustment, the grievance is carried successively to the next highest company officials until the top executives of the company are reached. When negotiations go above the heads of the department where the grievance arose, the handling of the case is generally turned over by the shop committee to the general yard committee. Three C. I. O. agreements establish for the adjustment of grievances only the procedure just described and two of these place no restrictions on strikes and lock-outs. The third (Todd-Johnson) prohibits work stoppages until the adjustment procedure is exhausted and requires that the highest officials of the company must meet with the union within 3 to 5 days after the grievance has been appealed from the decisions of lower officials.

Only two agreements, one of which covers Maryland Drydock, require that grievances must be presented in writing, but only in the later stages of negotiation. The Maryland agreement also requires the union to furnish the names of the union representatives who investigated the case. Negotiations are usually conducted on the employee's own time or outside of working hours, but one agreement requires all negotiations to be on company time and another provides that the last step in negotiations be during working hours. In a third, the negotiations are held outside of hours, but each union representative receives an hour's pay. The Federal agreement specifically grants shop representatives sufficient time off without pay to carry out their duties. Regular weekly meetings between the company and the union to discuss grievances are specifically provided for in one agreement, and in the Maryland agreement biweekly meetings are established.

All but 7 agreements (including American, Todd-Johnson, and Federal Shipbuilding) specifically recognize the right of the employees to call into the negotiations outside representatives of the union. Five A. F. of L. agreements authorize the business agent of the union concerned to enter the negotiations as soon as the dispute arises. If the grievance cannot be settled in the shop, representatives of the local metal trades council are called in under 8 agreements and representatives of the central labor council in one. National representatives are authorized to enter the last stage of negotiations in 11 agreements, representatives of the A. F. of L.'s Metal Trades Department in 5, and international union representatives in the others.

The adjustment procedure established in 13 A. F. of L. and 2 C. I. O. agreements ends with the calling in of outside representatives of the union. One of these prohibits strikes and lock-outs during the life of the agreement, while 6 (including Todd-Galveston, Tampa, Los Angeles Dry Dock, and Bethlehem at San Pedro) have no pro-

vision governing strikes and lock-outs. The other 8 agreements (including that covering Bethlehem in San Francisco) prohibit strikes and lock-outs until the adjustment procedure outlined in the agreement has been exhausted; in one of these, a Boiler-Makers' agreement, the international union must approve any strike before it is actually called. Two agreements specify that negotiations at the last stage must have continued 5 days, and one agreement 10 days, before the adjustment procedure can be considered exhausted. Two agreements permit a strike or lock-out if the entire series of negotiations takes longer than 5 and 10 days, respectively.

One A. F. of L. agreement provides a further step in the negotiations by requiring that the United States Conciliation Service shall be called in if the metal trades council fails to adjust the matter. Strikes and lock-outs are prohibited during the life of this agreement.

Arbitration

Only 4 A. F. of L. and 5 C. I. O. agreements provide for impartial arbitration of unsettled disputes; only one of these establishes a permanent impartial chairman for the duration of the agreement. The C. I. O. agreements (including Pusey & Jones, Maryland Drydock, Federal, and New York Shipbuilding) specify that unsettled grievances must go to arbitration within 3 to 10 days, if negotiations with the highest company official have failed to produce an adjustment.

The size of the arbitration committees varies in the agreements. Pusey & Jones and Federal Shipbuilding have a single arbitrator who is selected by the company and the union after negotiations fail. Under the Federal agreement the arbitrator must be chosen within 10 days. In the American Shipbuilding agreement, as a last resort before the case goes to arbitration, unsettled grievances are referred to a committee representing all of the company's plants and composed of three union and three company members. If this committee fails, one arbitrator is selected by the company and one by the union. These two select a third arbitrator, who acts as chairman.

The same type of arbitration committee is created in five of the other agreements (including Maryland Drydock and New York Shipbuilding), although in one the chairman is not added if the other two arbitrators can agree upon the matter within 5 days. In New York Shipbuilding, the third arbitrator is the permanent impartial chairman. In Consolidated, unsettled disputes are first referred to a joint committee of three company representatives and three representatives of the Central Labor Council. These six select a chairman if they cannot agree upon a settlement in 10 days. One of the agreements requires that the arbitration committee chairman be

selected by both parties within 3 days. Only two make provision for the eventuality of the parties being unable to agree upon a chairman—Maryland Drydock refers the selection to a designated judge if the parties cannot agree in 10 days and Consolidated, if a chairman has not been selected in 5 days, refers the matter to the local representative of the United States Conciliation Service, who is to submit a panel of five names. Each party has the right to reject two names, the remaining person automatically becoming chairman.

Only three agreements require a decision within a specified time after the arbitration committee is formed. The Pusey & Jones agreement requires a decision in 7 days and the Maryland Drydock in 10, while another permits a 5-day period.

Five of the agreements which provide for arbitration (Consolidated, Pusey & Jones, Federal, New York Shipbuilding, and one other) prohibit all strikes and lock-outs during the life of the agreement, while two merely prohibit strikes and lock-outs pending arbitration. The American Shipbuilding agreement prohibits strikes and lock-outs as long as the agreement is not violated and provides that only members of the union who are company employees shall be allowed to vote in the union meetings on such questions as strikes against the company. The Maryland Drydock agreement prohibits strikes and lock-outs, during the life of the agreement, over grievances subject to arbitration and disputes in which the company is not involved.



COLLABORATION BETWEEN PUBLIC AUTHORITIES AND ORGANIZATIONS OF WORKERS AND EMPLOYERS

IT WAS intended that the 1940 Conference of the International Labor Organization should provide an opportunity for an exchange of experiences and opinions among delegates on the methods of collaboration between public authorities and organizations of workers and employers. The course of European events made it impossible to hold the conference in June, as is customary, but the Office of the Organization prepared a comprehensive report¹ which, though it could not be used as the basis of international discussion—its intended function—can be used as a valuable work of reference on the subject of tripartite collaboration among public officials, workers, and employers.

The report grew out of certain trends that had become observable in the labor movements of the world—trends that were reflected by the International Labor Organization in discussions of its Governing Body and of delegates to its annual conference. As early as 1936 the

¹ International Labor Office. *Methods of Collaboration between the Public Authorities, Workers' Organizations and Employers' Organizations*. Geneva, 1940, pp. i-xii, 1-346.

Organization realized the value of making a world-wide inventory of the status of freedom of association and of its important ancillary procedures like collective bargaining and tripartite collaboration. A cursory glance at the scene suggested that a certain sharpening of issues was going on; that in some countries, as in France and the United States, freedom of association was being extended, developed, and reinterpreted, and was being more generally accepted as a means of achieving certain desirable ends. On the other hand, in other countries a new theory of labor relations was gaining ground.

Issues of even greater immediacy contributed, however, to the compilation of the report at this time. The European war caused the decline of certain labor standards, and working conditions suffered from the severe demands of war production. Everywhere the new labor regulations involved departures from the old ideals of economic freedom, yet permitted in France and Great Britain certain expansions of democracy.² In those two nations organized labor demanded a share in the formulation of such national policies as affected the working class directly. The French Government partially met this demand and seemed, in the early months of the war, disposed to go even farther; but nothing, or next to nothing, came of this and it is reasonable to suppose that organized labor played no role in the shaping of French policy after the conquest of the Lowlands. But it must be observed that Reynaud, the French Prime Minister during the active phase of warfare, seemed even more disposed than his predecessor in office, Daladier, to consult with trade-union leaders on matters of fundamental national policy. In Great Britain the better-established practice of consultation gave way to a far more intimate association of government and organized labor. The British Labor Party, last May, confirmed the selection of its leaders, the Messrs. Attlee, Bevin, and Greenwood, to posts of high responsibility in the Cabinet.

These events and trends demonstrated that the time was ripe for a summary, from an international viewpoint, of the present status of methods of collaboration between public authorities, workers' organizations, and employers' organizations. Since the publication of the report in April 1940 several nations have become members of the bloc that has substituted new theories of labor relations for the older ones based on economic liberty and freedom of association. In that same period, however, nations that owe their greatness to reliance on older theories, are stiffening their resistance against the threatened destruction of economic liberty and freedom of association.

The report is divided into five parts. Of these the first three constitute a summary and organization of materials which, while not unfamiliar to the student of labor problems, do bring together a vast amount of information that would otherwise be difficult to track

² For a general summary of these regulations, see *Monthly Labor Review*, December 1939, pp. 1348-1359: "European Labor on a War Footing."

down, particularly information on Europe and Latin America. Part IV deals with certain types of consultative councils which have, perhaps, not been adequately described or evaluated elsewhere. The final section is of interest primarily to those who were to have taken part in this year's June conference.

Status of Industrial Organizations

FREE ORGANIZATIONS

The volume opens with a brief historical survey of the legal status of free industrial organizations. It goes over familiar ground when it discusses the early prohibitions of the right to combine and strike. One section relates to constitutional guaranties of freedom of association. In most countries of the world, the report says, trade-unions can claim the benefits of a constitutional guaranty of freedom of association. On our hemisphere, it is interesting to note, an overwhelming majority of Latin American national constitutions guarantee this right. In recent years, however, all over the world, there have been modifications by statute or suspensions in practice, of the constitutions in effect just before or after the World War. This section also notes that a few nations, including our own, and the International Labor Organization itself, grants certain privileges to the most representative unions.

Following this historical discussion of the attitude of the State towards trade-unions comes an inquiry into the relations of workers' organizations to employers' organizations, and the present status of their mutual recognition. A distinction is made between collaboration rooted in tradition, established spontaneously between the parties without the intervention of public authorities (as in England), and collaboration based on certain specific agreements which, in some cases, were arrived at only after mediation by the public authorities. A third method of collaboration is described, in which the public authorities protect trade-unions through legislation. The United States National Labor Relations Act of July 5, 1935, is a good example of this type of legislation; and several nations, notably Belgium (before May 1940), Australia, New Zealand, Mexico, extend similar safeguards to workers.

ORGANIZATIONS IN AN INTEGRATED ECONOMY

The report, up to this point, discusses only workers' and employers' organizations that retain their "autonomy," that is, organizations which regulate "their relationships on a footing of equality and on their own responsibility." In the third chapter a different system of collective industrial relations is analyzed, the underlying principle of which is that collective relations in economic and industrial pursuits

are not of interest merely to the parties concerned but affect in the first instance the State itself, which, therefore, takes the responsibility of establishing a system for organizing these relationships. Italy, Portugal, Spain, Germany, and the Union of Soviet Socialist Republics are listed as being typical of nations in which the State brings about an integration of the organized economic and producing forces of the country and in which employers' and workers' organizations, where they continue to exist, are part of the general organization of the State. Certain underlying principles bring these nations into the same category, but each differs sufficiently from the others to warrant separate treatment. Here is found the gist of much legislation defining the role or attitude of the "integrated" State towards workers and employers.

Collaboration in Determining Conditions

Part II of the report discusses collaboration in determining conditions of employment. This involves a study of collective agreements arrived at by workers and employers without the supervision of the State; of collective agreements having the force of law; of "official" collective agreements as they exist in Bulgaria, Greece, Italy, Portugal, and the Union of Soviet Socialist Republics; of agencies created by State initiative to stimulate and coordinate collective bargaining; of permanent agencies for the determination of working conditions; and, finally, of conciliation and arbitration.

Under these headings are such subheads as union recognition; the problem of rival unions; the enforcement of agreements; the extension of agreements to third parties. In connection with this last-mentioned item, the report describes the close collaboration required between public authorities and organizations before an agreement between two groups of limited membership can be made binding on all employers and workers, whether or not they are members of those groups. Many countries have tried this method of establishing conditions of work, including Great Britain, Australia, New Zealand, France, and a few Latin American nations.

In the chapter on conciliation and arbitration an answer is made to the question, "What happens if the parties refuse to collaborate?" The usual distinction is made between conciliation and arbitration. It is pointed out that conciliation can be effective only when industrial relations are conducted on a mature plane. The report states:

The system of conciliation under collective agreements being the outcome of an understanding between the industrial organizations, it is characterized by the fact that the parties themselves are directly and exclusively associated in the negotiations at every stage and assume full responsibility for them. Such a system cannot work, however, unless certain *de jure* and *de facto* conditions are satisfied.

De jure conditions: Freedom of association, priority of the method of collective bargaining over that of regulation.

De facto conditions: Well-organized employers' and workers' associations, mutual confidence, established practice of having recourse to statutory methods only in case of strict necessity.

If the fundamental agreement is lacking, the intervention of the public authorities becomes inevitable.

Under the heading, "arbitration," representative procedures involving both voluntary and compulsory arbitration are described. Space is given to the labor courts of Italy and Portugal and to the somewhat similar Brazilian institution, which, however, differs from the others in that the body responsible for dealing with disputes has a tripartite composition.

Direct Intervention of the State

Part III describes the direct intervention of the State in industrial and social affairs through legislation. Organizations exert pressure on legislative bodies in various ways. The constitutional situation in the United States, the report tells us, is unique in that all bills proposed are "private members' " bills. This fact, the report asserts, calls "lobbies" into existence. But in all countries having representative governments, pressure is exerted through some channel or other, and labor legislation is often in fact, if not in law, initiated by some interested organization. Thus, even "lobbies" find a place in democratic procedure.

The maintenance of steady relations between governmental officials and workers and employers is treated as follows:

The method of direct consultation with the organizations is very widely practiced; indeed, it is often so much an accepted and informal affair that it would be difficult to say of any country that it is never resorted to—apart, of course, from countries where organizations of workers and employers are prohibited or have not yet come into being.

In the most highly developed countries, where workers' and employers' organizations are well established and have a long experience and sense of responsibility in public affairs, the collaboration between the departments and organizations is often very close, constant, and cordial. Sometimes it may be quite informal; a departmental official bothered with some question of detail, for example, need do no more than give a telephone call to the offices of the organizations to secure the information or assistance he requires. On larger issues, the consultation may be quite formal and may attract considerable public attention and exert a far-reaching influence.

National Economic Councils

The State often sets up ad hoc committees for consultation and collaboration—frequently to make recommendations on special problems. The Royal Commissions of England have been responsible for some of the most far-reaching reforms in the social history of Great Britain: The Factory Act, the Poor Law of the 1830's, and the Trade Union Acts of the seventies, to name but a few. These com-

missions have at times had a tripartite composition; at other times they have not. The elaboration of social-security legislation in the United States was preceded by the appointment of special advisory councils, the membership of which included representatives of workers and employers. France, Italy, the Netherlands, and several South American countries, rarely—if ever—resort to this type of ad hoc machinery. Certain permanent organs of consultation and collaboration exist, notably vocational and corporative chambers and labor councils. The latter have had a marked influence on the labor legislation of certain countries, such as Belgium, Holland, and Sweden.

In certain countries, notably France, Greece, and Rumania, permanent commissions have been created for consultative purposes; these are organs of general competence and are of recent origin, the French commission—the oldest—having been established only since 1925. In recent years these commissions have been reconstituted, and a number of countries have adopted the institution, particularly since the outbreak of war. They now generally bear the name of 'National Council,' usually with some qualification (e. g. in Great Britain: National Joint Advisory Council; Greece: National Economic Council). The councils are deemed to be of such importance by the International Labor Organization, and to give such great promise for the extension of industrial democracy that the whole of part IV is devoted to their consideration:

Chapter I [of part IV] deals with the evolution, functions, and experience of national economic councils in various countries. The next chapter describes methods of collaboration in dealing with economic questions in the war of 1914–18 and in the present war. The final chapter briefly sums up the case for collaboration in the economic field and the conditions under which it may be extended with useful results in the future.

GERMAN PROVISIONAL ECONOMIC COUNCIL

The historical basis of present-day³ national councils lies in the Provisional Economic Council of republican Germany, created in 1920. Its former composition, functions, and achievement are described by the International Labor Organization as follows:

The Council as set up in 1920 was provisional, as it was the intention of the Government to experiment before making it a permanent body. In 1926 and 1930 bills were submitted to the Reichstag for giving a permanent constitution to the Council, providing for a reduction in the total membership, etc., but in general maintaining the nature and function of the Council as before. These bills failed to pass because of conflict as to distribution of seats and were then lost sight of in the parliamentary difficulties of 1931–33. An attempt to revive the Council in a new form was made in April 1933, but no meetings of the Council were held and it was finally abolished on March 23, 1934.

During the 13 years of its existence the Council rendered valuable service to the German economic system, despite its struggle against political opposition and

³ The term "present-day" and similar expressions throughout this article refer to the situation as it existed at the time of the publication of the report—April 1940.

material difficulties. The period of its activity has been divided roughly into three phases. The first, extending from its foundation until 1923, was marked by its most successful show of strength and intense creative effort. Public leaders attached great importance to the new institution and gave it full support, which, combined with the prestige of trade and industry in post-war Germany, served to make this phase of its existence by far the most successful. During the second phase the Council received much less publicity and popular support; but owing to the experience gained, its activities, though quieter, were much more concentrated. As a result of inflation its budget had to be reduced and much of its activity necessarily curtailed. In addition it was during this phase that its constitutional form was brought up for discussion in the Reichstag, which soon gave rise to the political disfavor which marked the last phase of its existence. The third phase, 1930-34, was marked by the adverse effects of the general political position, with the consequent narrowing of the Council's sphere of influence, just as the Reichstag was relegated to the background by the fact that urgent problems were felt to necessitate prompt solution by means of emergency decrees.

In general, though, the Council's activities were so far-reaching and many sided that it is impossible to touch on them all in a brief survey. The numerous problems with which it dealt reached into every phase of economic and social life. It played a decisive part in the stabilization of the currency, the reform of taxation, labor legislation, customs tariffs, measures against price increases and for price reductions, the preparation of an employment program, etc. In addition it formulated opinions on many international problems such as the resolutions of the 1927 World Economic Conference and the recommendations of the League of Nations Economic Committee in regard to commercial policy.

FRENCH NATIONAL ECONOMIC COUNCIL

The French National Economic Council, with an equally interesting history, is next described. It was created in 1925 by the Herriot Government at a time when pressure for a different type of council was exerted by a group drawn from the Action Française and monarchistic circles. The function of the Council was purely advisory, and it had no power to initiate legislation.

During the period of its existence and especially since its reorganization in 1936 the Council has done a great deal of very important work and in general has proved its effectiveness. Its advisory aid to the Government has been invaluable during the economic crisis of the past decade and its studies and reports which are published in the *Journal Officiel* have attracted widespread attention in France and in other countries.

It studied the housing shortage in 1925 and 1926; between 1927 and 1930—

* * * the Council occupied itself mainly with an investigation of the problem of national equipment—i. e., a study of requirements of raw materials, machinery, labor supply, markets, and productivity for the reorganization of national industrial equipment. Subsequently the Council undertook an elaborate study of the national economy and the problems of rationalization in industry. From this survey were published a series of reports on agriculture and the principal industries of the country.

* * * Finally the Council has given considerable attention to the improvement of relations between employers and workers, and as a result of numerous consultations on the application of laws on conciliation and arbitration the

Council made suggestions which were largely embodied in a decree of April 20, 1938, providing for new procedures in this field.

ECONOMIC COUNCILS IN OTHER COUNTRIES

In Great Britain there has long been an Advisory Economic Council. Though it includes trade-union representatives, its constitution and method of operation is quite different from the councils described above. The International Labor Organization's report discusses it briefly.

The outbreak of war in 1939 gave considerable impetus to the further development of collaboration, not only in France and England, but also in some of the mobilized neutral countries and in New Zealand. This was partially described in the December issue of the Monthly Labor Review. The International Labor Organization summary is more recent and more complete. From it one concludes that the British scheme of collaboration was, at the time of publication, the most thoroughgoing. Since then, as has been noted above, the British Labor Party has contributed several of its members to the British Cabinet.

Fundamental Principles Underlying Collaboration

The discussion of national councils is concluded by a discussion of the fundamental principles underlying collaboration between the public authorities and organizations of workers and employers. Three reasons are given in support of the principle:

* * * First, organized employers and workers play such vital parts in the working of the economic order that they are justified in seeking to make known their positions on the variety of socio-economic issues on which government activity or inactivity affects them. * * *

The second reason for the adoption of the principle of collaboration on economic and socio-economic questions is that governments need the technical knowledge and experience which organized workers and organized employers are able to bring to the discussion of these questions. * * *

Finally, the adoption of the principle of collaboration provides a means through which the activities of the group represented may be brought into close harmony with the general interest.

The principle granted, the next question is the method. The machinery of the representative national economic council is commended to the attention of the reader:

* * * From the brief survey given there it appears that some form of representative economic council, such as the National Economic Council of France, would offer the widest scope for effective collaboration within a democratic political framework. However, if a central economic organization is to provide real representation for all the various economic interest within the community, it is in danger of becoming unwieldy. The best size for such a body cannot be laid down in general terms, for it will depend in part on the economic structure of each country. The most effective method for reconciling broad representation

with efficient working seems to lie in setting up a fairly large council with a number of specialized sections attached to it—the sections meeting frequently and undertaking detailed deliberations the results of which are submitted to the general council, which meets less frequently. In addition, a permanent secretariat including well-trained experts in economic and statistical questions and with facilities for investigation and research is necessary if the council is to work effectively.

A number of other questions arise with regard to councils of this type. What groups, if any, besides employers and workers should be represented on them? What should be the powers of the councils and their precise relationship to governments? Experience so far appears to indicate that they should act in an advisory capacity to both the legislative and executive branches of governments. It is important that relationships should be established between the councils and governments that would enable the results of the collaboration worked out in the council and the investigation made by it to influence legislation on economic questions. It has been proposed that such councils should have the power to initiate legislation. This of course would not involve the grant of legislative power but merely the power to introduce bills in the legislature. Without this power the councils must confine themselves to presenting the results of their deliberations in the form of recommendations to governments and in the form of advice on such legislative proposals as are submitted to them by governments.

The substantial section of the report ends on this note. In summary, it may be said that the ILO volume is at once a repository of international information about freedom of association and a bold advocate of specific machinery through which tripartite collaboration, rooted in free association, may be called to the service of the democratic state, even in wartime. So rapid was the tempo of events last spring that many pages of the report describe things that have already ceased to exist. The report remains, nevertheless, extremely useful to trade-unionist, employer, scholar, and civil servant. Its careful study of the principles and methods of collaboration between the state and free organizations of producers, will be highly valued wherever the democratic process is held in esteem.

Older Workers

HIRING OF OLDER WORKERS BY WAR AND NAVY DEPARTMENTS

THE URGENT need for speeding up defense programs in the United States is arousing the hope of older jobless workers that their days of usefulness are not over. The recent lifting of the arbitrary age ban in connection with the taking on of new employees for certain occupations in the War and Navy Departments¹ has offered special encouragement to mature skilled men who are eager for employment in their special crafts.

On June 3, 1940, the United States Civil Service Commission issued to all its district managers whose jurisdictions included navy yards, the following instructions:

For the present emergency district managers may extend the maximum age limits for any position in which in their judgment the existing maximum age limit of 48 years will not produce sufficient qualified eligibles and the extension to the 55-year maximum will considerably augment the supply.

The same problem was taken up with the War Department, which concurred "in the proposal that the maximum age limit for all positions in the trades and skilled occupation classes in which a shortage of eligibles is found to exist may be extended to 55 years throughout the War Department."

On July 12, 1940, at the request of the Navy Department, the district managers of the United States Civil Service Commission were "authorized to further extend the maximum age limits beyond the 55-year limit now placed, to the retirement age of 62 years, for the following trades and occupations in the Navy Yards."

Machinists (inside, outside, and all-round).	Boilermakers.	Precision-lens, prism and test-plate makers.
Toolmakers.	Boatbuilders.	Anglesmiths (other fires).
Loftsmen.	Molders (steel).	Metalsmiths, aviation.
Shipfitters.	Blacksmiths (heavy fires).	Drillers (pneumatic).
Shipwrights.	Blacksmiths (other fires).	Pipecoverers and insulators.
Coppersmiths.	Calkers and chippers, iron.	

In accordance with a later request of the Navy Department, the United States Civil Service Commission's district managers were

¹ United States Civil Service Commission. Circular letter No. 2938, June 28, 1940; Supplement No. 1, July 12, 1940; and Supplement No. 2, July 24, 1940. Washington, D. C.

given authority to use the same maximum-age limit in announcing "ironworker examinations" (for the performance of shipfitter duties), should there be any indication that an adequate number of eligibles under 55 years of age would not be obtainable.

Shortly afterward, the office of the Chief of Ordnance, in the War Department requested the Civil Service Commission also to raise the maximum age limit, in the case of specified positions under Ordnance regulations for which it was being found difficult to secure eligibles, to 62 years. On July 24, 1940, the Commission directed its district managers to include in their examination announcements notice of the requested extension.



RECENT ACTIVITIES OF NEW YORK FORTY PLUS CLUB

IN JUNE 1940, the New York Forty Plus Club, a noncommercial organization the members of which cooperate in obtaining employment for each other, had 212 "alumni" (i. e., members returned to pay rolls) as against 55 in June 1939.¹

In the week ended June 15, 1940, the number of jobs discovered was 19 and several men were placed as the outcome of a continuous canvass of business establishments by 65 field men of the club, the headquarters of which are at the Rockefeller Center, New York City. Affiliated Forty Plus Clubs in such cities as Boston, Cleveland, Detroit, Kansas City, Los Angeles, and Philadelphia have reported similar comparative results. According to a report on this work, "If this trend continues, some of these clubs will go out of existence, to everybody's satisfaction, since the measure of their success is general reemployment for mature and experienced men."

For the 6 months ending June 30, 1940, the New York Club averaged 125 active members over 40 years of age—all citizens of the United States, and "all executives who have earned more than \$4,000 annually." This group of men represents experience in various industries and includes sales managers, accountants, chemists, engineers, purchasing agents, plant managers, traffic managers, and advertising men.

A comprehensive scheme has been worked out under which new companies which are expanding and in need of additional employees, as a result of the European War and of our defense industries, may be furnished with key men for any department. Club men may be secured quickly to meet special requirements. No charges are made or fees of any kind asked. The organization is supported wholly by voluntary contributions from its members.

¹ Bulletin of the General Contractors Association, New York City, June 1940.

Social Security

PLACEMENT WORK OF PUBLIC EMPLOYMENT SERVICES, JULY 1940¹

PLACEMENTS completed by public employment offices in July totaled 308,000, a decline of 6.6 percent from June. The number of private placements was the highest for any July in the history of the employment service, despite the 10-percent decline from June. Supplemental placements totaled 120,000, the first decline in 5 months, reflecting curtailed employment in agriculture. Applications for work increased 6.3 percent to 1.4 million, largely because of reduced employment in industries which usually curtail operations at this time of the year. Registrants in the active file at the end of July numbered nearly 5.6 million, a decline of 3 percent from the close of June.

Approximately 260,000 placements in private employment were completed during July by public employment offices. More than 129,000 or 50 percent of all private placements were expected to last a month or more. Of the 36 States reporting fewer private placements than in June, declines in excess of 50 percent were reported by Arkansas and Washington, and reductions ranging from 20 to 40 percent occurred in Alabama, Arizona, Idaho, Indiana, Kentucky, New Jersey, and Tennessee. The decrease in Arkansas was primarily attributable to the sharp decline in agricultural placements which comprise a sizable portion of private placements made in this State. Private placements more than doubled in North Dakota and increased more than 50 percent in Oklahoma, as agricultural activity expanded. Increases of more than 25 percent in private placements were also reported by Alaska, Minnesota, South Dakota, and Wyoming. Placements made in public and governmental work increased 16.5 percent from June to nearly 49,000. This volume, however, was only two-thirds that for July 1938 and 1939.

For the first 7 months of this year, public employment offices have completed more than 1.7 million placements in private employment, a gain of nearly 27 percent over the corresponding period of 1939. Placements during January-July 1940 were more than double the volume for the comparable period of 1939 in Hawaii; Florida showed a corresponding gain for the period March-July 1940. Gains of 50

¹ Prepared by Research and Statistics Division, Bureau of Employment Security, Social Security Board.

percent or more were reported in 12 additional States. Only 5 States reported filling fewer jobs in private employment during January-July 1940 than in the same period in 1939.

Supplemental placements declined 15.4 percent from June and were slightly less than the volume of such placements in July 1939. Of the 120,000 supplemental placements, more than 98,000 or 82 percent were in agriculture, in contrast to 88 percent in the previous month. In addition to Texas, relatively large volumes of supplemental placements were reported in Arkansas and Oregon.

Increases in applications for work were reported by 26 States, with rises of 40 percent or more shown for Alabama, Michigan, Mississippi, and Oregon. The decline in the number of registrants in the active file since June 30 approximated 173,000. Decreases were reported in 38 States with reductions of more than 20 percent in the volume of job seekers occurring in Alaska, Indiana, Louisiana, Maine, and Wyoming and of more than 10 percent in Arizona, Connecticut, Hawaii, Montana, New Hampshire, and Vermont. The only States reporting increases of more than 10 percent in the number of job seekers in the active file were Florida, Mississippi, and Ohio.

Placements of veterans by public employment offices totaled more than 10,400 in July. Approximately 8,000 of these placements were in private employment, a decline of 10.7 percent from June. Nearly 50,000 applications for work were received during the month, an increase of 18.3 percent over June. The number of veterans registered in the active file declined 4.1 percent to 230,000 at the end of July.

TABLE 1.—Summary of Placement Activities of Public Employment Services, July 1940

Activity	Number	Percent of change from—		
		June 1940	July 1939	July 1938
Total complete placements.....	308, 114	-6.6	+7.8	+35.4
Private.....	259, 536	-10.0	+21.9	+66.2
Regular.....	129, 035	-3.6	+23.3	+81.0
Temporary.....	130, 501	-15.5	+20.5	+53.7
Public.....	48, 578	+16.5	-33.3	-32.0
Supplemental placements.....	120, 065	-15.4	-1.0	-----
Total applications.....	1, 400, 951	+6.3	+23.0	+13.1
Active file.....	5, 564, 630	-3.0	-8.8	-31.2

TABLE 2.—Summary of Placement Activities for Veterans, July 1940

Activity	Number	Percent of change from—		
		June 1940	July 1939	July 1938
Total complete placements.....	10, 444	-6.8	-11.9	-11.5
Private.....	8, 012	-10.7	+8.8	+23.4
Regular.....	2, 994	-4.6	+13.1	+50.4
Temporary.....	5, 018	-13.9	+6.4	+11.5
Public.....	2, 432	+8.4	-45.8	-54.2
Total applications.....	49, 794	+18.3	+25.3	+5.1
Active file.....	230, 000	-4.1	-18.5	-47.1

TABLE 3.—Activities of Public Employment Services, All Registrants, by States, July 1940

[Preliminary data reported by State agencies, corrected to Aug. 14, 1940]

Social Security Board region and State	Complete placements						Supplemental placements	Applications received			Active file as of July 31, 1940
	Total	Number	Private		Public	Number		Percent of change from—			
			Percent of change from—					Regular (over 1 month)	June 1940	July 1939	
			June 1940	July 1939							
Total	308, 114	259, 536	-10. 0	+21. 9	129, 035	48, 578	120, 065	1, 400, 951	+6. 3	+23. 0	5, 564, 630
Region I:											
Connecticut	5, 306	4, 113	-8. 5	+43. 3	2, 542	1, 193	98	20, 169	-12. 1	+13. 6	76, 737
Maine	2, 793	2, 292	+3. 7	+27. 3	1, 860	501	41	8, 882	-17. 2	+17. 0	34, 401
Massachusetts	3, 826	3, 223	-3. 9	+62. 2	2, 582	603	9	32, 106	-7. 5	+24. 1	208, 417
New Hampshire	2, 258	1, 748	-13. 1	+17. 1	1, 263	510	454	6, 164	-19. 4	+16. 3	22, 002
Rhode Island	726	649	-11. 2	-7. 3	478	77	110	4, 845	-39. 4	-48. 1	43, 607
Vermont	1, 163	942	-5	+18. 6	540	221	13	2, 310	-12. 6	-17. 4	15, 758
Region II:											
New York	26, 860	25, 077	-4. 8	+57. 8	13, 808	1, 783	810	170, 426	-1. 2	+30. 0	636, 172
Region III:											
Delaware	1, 472	1, 188	+6. 1	+3. 7	501	284	152	3, 349	+11. 7	-3. 9	11, 636
New Jersey	7, 615	7, 400	-21. 4	-13. 6	4, 543	215	438	51, 402	+6. 0	+13. 9	255, 278
Pennsylvania	12, 453	9, 246	-8. 6	+53. 6	6, 595	3, 207	815	128, 007	+3. 2	+18. 5	385, 636
Region IV:											
District of Columbia	3, 488	2, 989	-17. 8	+26. 2	1, 393	499	2	11, 964	-16. 3	+29. 5	34, 878
Maryland	4, 342	3, 617	-5. 1	+32. 1	2, 169	725	29	19, 107	-9. 2	+2. 1	71, 994
North Carolina	5, 208	4, 092	-13. 8	+3. 9	2, 140	1, 116	632	27, 610	+22. 3	+30. 2	97, 946
Virginia	5, 011	4, 181	-17. 0	+33. 2	2, 713	830	151	19, 394	+5. 8	-8	55, 547
West Virginia	2, 819	2, 339	-3. 5	+20. 9	1, 248	480	216	19, 781	-2. 4	+20. 1	81, 496
Region V:											
Kentucky	2, 496	1, 693	-29. 2	+36. 9	955	803	162	16, 582	+5. 0	+5. 5	96, 292
Michigan	11, 794	10, 907	-5	+11. 3	5, 998	887	208	82, 462	+54. 9	+63. 8	265, 891
Ohio	14, 022	12, 986	-17. 4	+31. 4	6, 987	1, 036	688	96, 482	+29. 2	+59. 7	348, 256
Region VI:											
Illinois	12, 006	11, 760	-12. 1	+28. 4	6, 320	246	904	51, 909	-8. 2	+12. 0	183, 543
Indiana	6, 602	6, 288	-24. 1	+11. 8	3, 719	314	2, 147	40, 101	-2. 4	+5. 3	136, 084
Wisconsin	7, 654	6, 702	-2. 2	+17. 2	3, 915	952	423	29, 651	-7. 1	+7. 8	105, 988
Region VII:											
Alabama	4, 142	3, 418	-27. 0	+25. 6	2, 539	724	155	26, 458	+41. 6	+54. 0	104, 312
Florida	2, 576	1, 741	-2	+62. 6	1, 047	835	285	19, 422	+15. 3	+32. 1	77, 992
Georgia	8, 385	6, 720	-1. 4	+41. 9	2, 648	1, 665	338	25, 154	-7. 7	+2. 8	170, 527
Mississippi	3, 726	1, 978	-5. 4	+11. 0	928	1, 748	231	22, 091	+47. 8	-15. 2	59, 717
South Carolina	2, 551	1, 250	-17. 6	+35. 4	713	1, 301	19	10, 827	+23. 2	+22. 9	54, 083
Tennessee	4, 820	4, 093	-38. 3	+45. 4	2, 565	727	4, 339	12, 204	-19. 2	+14. 5	118, 689
Region VIII:											
Iowa	7, 289	5, 229	+1. 7	-3. 6	1, 684	2, 060	389	17, 426	-2. 7	+5. 9	78, 818
Minnesota	8, 674	7, 492	+25. 2	+37. 8	3, 623	1, 182	949	22, 011	+16. 5	+38. 9	131, 856
Nebraska	3, 357	1, 807	-6. 7	+30. 1	785	1, 550	97	10, 786	-3. 9	+42. 2	44, 468
North Dakota	4, 513	4, 032	+123. 1	-10. 8	2, 007	481	40	6, 302	+37. 3	+16. 0	29, 925
South Dakota	1, 864	1, 222	+40. 4	+96. 1	548	642	101	3, 131	-12. 4	+33. 6	26, 514
Region IX:											
Arkansas	4, 067	3, 365	-52. 8	-13. 3	1, 279	702	11, 645	11, 206	-15. 6	+26. 3	42, 890
Kansas	4, 562	3, 553	-2. 2	+57. 4	1, 151	999	432	16, 000	+2. 1	+42. 6	59, 065
Missouri	7, 322	6, 422	-15. 2	+49. 6	3, 439	900	569	40, 763	+1. 2	+45. 4	178, 068
Oklahoma	7, 021	6, 368	+57. 0	+98. 0	840	653	1, 826	18, 428	-3. 3	-3. 2	89, 088
Region X:											
Louisiana	2, 902	2, 501	+2. 7	-18. 5	1, 674	401	360	23, 233	+16. 7	+31. 1	69, 779
New Mexico	1, 227	874	-11. 9	+9. 0	450	353	266	3, 964	+2. 5	-12. 9	34, 315
Texas	29, 179	25, 312	-1. 6	+22. 8	7, 875	3, 867	55, 464	64, 293	+13. 8	+34. 1	249, 322
Region XI:											
Arizona	2, 095	1, 826	-22. 3	+26. 4	654	269	2, 889	5, 826	-12. 8	+21. 2	22, 989
Colorado	8, 098	7, 824	+23. 0	+53. 6	1, 466	274	2, 337	16, 205	+9. 5	+10. 6	59, 713
Idaho	3, 086	2, 217	-38. 7	+7. 9	864	869	1, 146	8, 113	-6. 6	+51. 6	15, 290
Montana	2, 593	1, 801	+10. 8	+91. 6	1, 161	792	693	4, 575	+12. 3	-14. 4	21, 553
Utah	2, 362	1, 986	+8. 2	+10. 3	264	376	337	8, 578	-4	-13. 4	22, 147
Wyoming	1, 282	683	+29. 6	+16. 8	393	599	54	3, 095	-7. 3	+5. 0	6, 571
Region XII:											
California	22, 512	19, 118	+7. 4	-3. 8	10, 112	3, 394	4, 623	105, 916	+12. 7	+13. 0	468, 631
Nevada	1, 470	1, 155	+8. 6	+28. 5	690	315	368	3, 153	+19. 8	-4. 7	5, 726
Oregon	6, 278	4, 552	-5. 4	+10. 0	2, 678	1, 726	13, 511	21, 314	+54. 7	+76. 0	38, 506
Washington	8, 585	6, 634	-64. 4	-24. 9	2, 314	1, 951	8, 008	25, 418	-10. 6	+35. 2	107, 615
Territories:											
Alaska	620	403	+28. 3	+91. 9	186	217	32	920	+6	+51. 6	947
Hawaii	1, 052	528	-2. 4	+111. 2	189	524	0	1, 386	+15. 6	+44. 1	7, 955

TABLE 4.—Activities of Public Employment Services, Veterans, by States, July 1940

[Preliminary data reported by State agencies, corrected to Aug. 14, 1940]

Social Security Board region and State	Complete placements					Applications received				Active file as of July 31, 1940
	Total	Private			Public	Num- ber	Percent of change from—			
		Num- ber	Percent of change from—				June 1940 ¹	July 1939 ¹		
			June 1940 ¹	July 1939 ¹						
Total	10, 444	8, 012	-10. 7	+8. 8	2, 994	2, 432	49, 794	+18. 3	+25. 3	230, 000
Region I:										
Connecticut	204	144	-21. 7	+22. 0	77	60	564	-3. 4	-14. 5	3, 132
Maine	94	66	-10. 8	+26. 9	50	28	316	+31. 7	+9. 3	1, 678
Massachusetts	103	59	+11. 3		48	44	887	+5. 5	+31. 6	5, 779
New Hampshire	88	68	-20. 9		53	20	271	+1. 1	+27. 2	788
Rhode Island	29	19			15	10	107	-17. 7	-51. 8	1, 028
Vermont	47	41			16	6	56	+3. 7	-41. 0	705
Region II:										
New York	579	504	-10. 8	+68. 0	193	75	2, 512	-2. 7	+31. 2	15, 484
Region III:										
Delaware	44	26			12	18	133	+29. 1	0	381
New Jersey	125	119	-28. 7	-21. 2	75	6	1, 063	+13. 4	+7. 5	7, 985
Pennsylvania	317	222	-6. 7	+80. 5	173	95	5, 101	+15. 9	+16. 7	15, 131
Region IV:										
District of Columbia	114	72	-32. 7	+5. 9	23	42	551	-37. 3	+42. 0	2, 026
Maryland	174	144	-5. 9	+22. 0	80	30	536	-11. 1	-25. 2	2, 704
North Carolina	114	96	+10. 3	-5. 9	23	18	675	+40. 6	+9. 9	2, 217
Virginia	85	65	-24. 4	-29. 3	30	20	524	+34. 7	-10. 3	1, 341
West Virginia	70	49			26	21	724	+2. 1	+40. 0	4, 122
Region V:										
Kentucky	65	31			16	34	584	+17. 0	+11. 0	3, 936
Michigan	438	391	-21. 3	+11. 1	186	47	3, 142	+52. 3	+52. 0	12, 862
Ohio	493	437	-22. 0	+37. 0	174	56	4, 795	+102. 5	+104. 7	14, 855
Region VI:										
Illinois	374	333	-9. 5	+16. 8	125	41	1, 782	-18. 6	+11. 9	8, 098
Indiana	124	111	-35. 8	-29. 7	54	13	1, 327	+19. 3	+3. 9	5, 860
Wisconsin	210	171	-1. 2	-2. 8	92	39	1, 468	+2. 2	+18. 7	6, 229
Region VII:										
Alabama	117	93	-27. 9	+32. 8	40	24	879	+63. 1	+66. 5	4, 299
Florida	90	62	+17. 0		42	28	666	+15. 6	+20. 4	3, 196
Georgia	183	141	-16. 1	-11. 9	32	42	683	+4. 1	+16. 4	4, 745
Mississippi	55	27			11	28	798	+91. 8	+64. 2	1, 773
South Carolina	59	28			9	31	286	+15. 8	+16. 7	1, 692
Tennessee	117	89	-45. 7	+2. 3	52	28	361	-18. 1	-1. 9	4, 529
Region VIII:										
Iowa	557	377	+4. 4	-4. 3	59	180	792	+12. 0	-10. 0	4, 755
Minnesota	306	228	+1. 3	+16. 3	91	78	920	+69. 7	+64. 0	8, 301
Nebraska	120	70	-31. 4	+14. 8	10	50	563	+17. 5	+37. 0	2, 523
North Dakota	125	102	+92. 4	-7. 3	44	23	162	+26. 6	+21. 8	1, 264
South Dakota	76	47			20	29	116	+7. 4	-17. 1	1, 296
Region IX:										
Arkansas	90	65	-75. 5	-70. 7	17	25	363	-10. 1	-8. 1	1, 750
Kansas	173	131	-3. 0	+18. 0	25	42	632	-11. 8	+15. 3	3, 626
Missouri	252	210	-39. 8	+50. 0	80	42	1, 667	+9. 0	+46. 2	8, 663
Oklahoma	333	293	+84. 3	+87. 8	10	40	929	-14. 7	+6. 6	5, 717
Region X:										
Louisiana	67	22			14	45	767	+57. 2	+49. 5	2, 122
New Mexico	42	24			8	18	167	+2. 4	-18. 9	1, 818
Texas	955	782	-2. 8	+1. 3	108	173	1, 878	+48. 0	+66. 9	7, 563
Region XI:										
Arizona	72	60	-40. 6		23	12	318	-3. 3	+40. 1	1, 398
Colorado	230	208	+23. 8	-10. 0	47	22	775	+18. 0	+22. 0	2, 987
Idaho	215	158	-25. 1	-1. 2	36	57	520	-13. 3	+80. 6	914
Montana	162	103	-10. 4		75	59	268	+19. 1	-26. 4	1, 206
Utah	114	72		-2. 7	6	42	364	+11. 6	-37. 9	1, 213
Wyoming	48	22			14	26	161	+20. 1	-14. 4	350
Region XII:										
California	1, 153	883	+3. 8	+3. 8	355	270	5, 340	+9. 1	+15. 3	27, 391
Nevada	97	78	+52. 9	+32. 2	47	19	151	+7. 1	-24. 9	292
Oregon	377	236	+1. 7	+13. 5	110	141	1, 079	+81. 6	+83. 2	2, 578
Washington	291	201	-33. 2	-11. 4	59	90	979	+35. 6	+40. 9	5, 206
Territories:										
Alaska	24	14			7	10	43			48
Hawaii	53	18			2	35	29			439

¹ Where less than 50 veteran placements or applications, were involved in either period the percentage change was not computed.

UNEMPLOYMENT-COMPENSATION OPERATIONS, JULY 1940¹

DESPITE indications of increasing employment in certain durable-goods industries directly related to the defense program, both benefit payments and continued claims reached slightly higher levels than the previous record highs established in May, largely as a result of reductions in employment in industries producing automobiles, coal, and cotton textiles. A contributing factor to the increases in the amount of benefit payments were the payments made against the carry-over of compensable claims from the previous month.

Continued-claim receipts in July totaled nearly 7.3 million, which slightly exceeded the previous high record established in May. Total receipts were also 11.8 percent higher than in June, partly due to the greater number of working days; 38 States reported increased receipts. The volumes received by both Michigan and Utah were double the June receipts; seasonal lay-offs in automobile plants and a new uniform benefit year were chiefly responsible for the increases in these States. Increases of 20 percent or more were also reported by 9 other States. Claims filed to meet waiting-period requirements of State laws expanded nearly 20 percent, while compensable claims increased 10 percent. The expansion in waiting-period claims suggests that many newly unemployed workers began to claim benefits in July.

Weeks of unemployment compensated during July exceeded 5.5 million, which was also slightly higher than the previous record established in May. More than 5 million, or 91 percent of all weeks of compensated unemployment, were for total unemployment. Weeks of partial and part-total unemployment declined slightly to 483,000. Increases in all weeks of unemployment compensated were reported by 26 States with rises in excess of 20 percent occurring in Florida, Michigan, New Mexico, Utah, and Wisconsin. As in June, more than one-fifth of all weeks of unemployment compensated in Delaware, Illinois, Indiana, Kentucky, Missouri, New Hampshire, Oregon, and Wyoming were for partial and part-total unemployment. Hawaii reported a sharp drop in weeks of partial and part-total unemployment compensated.

Benefit payments during July totaled more than \$55,700,000, \$862,000 more than the former record disbursement of May. Increases were reported by 27 States with expansions of 30 percent or more occurring in Florida, Michigan, New Mexico, Utah, and Wisconsin. Georgia and New York paid more than in any other single month since they began to pay benefits, and Louisiana, North Carolina, South Carolina, Tennessee, and Virginia paid more than in any other month of this year. On the other hand, declines of 20 percent or

¹ Prepared by Research and Statistics Division, Bureau of Employment Security, Social Security Board.

more were reported by Hawaii, Montana, New Hampshire, and Rhode Island.

Continued Unemployment Compensation Claims Received, Weeks Compensated, and Benefits Paid, by States, July 1940

[Data reported by State agencies, corrected to Aug. 13, 1940]

Social Security Board region and State	Continued claims			Weeks compensated			
	Number	Type		Number	Type of unemployment		
		Waiting period	Compens- able		Total	Partial and part- total combined ¹	Partial only ¹
Total.....	7,291,385	1,616,612	5,674,773	5,500,715	5,017,702	483,013	-----
Region I:							
Connecticut.....	74,034	24,946	49,988	45,063	38,186	6,877	(¹)
Maine.....	71,351	12,986	58,365	59,476	53,152	6,324	(¹)
Massachusetts.....	486,056	56,790	429,266	370,815	370,815	(¹)	(¹)
New Hampshire.....	34,424	9,175	25,249	25,507	18,777	6,730	(¹)
Rhode Island.....	102,000	11,193	91,407	91,407	73,212	18,195	(¹)
Vermont.....	9,817	2,253	7,564	7,456	6,548	908	771
Region II:							
New York.....	1,552,652	271,942	1,280,710	1,277,749	1,277,749	(¹)	(¹)
Region III:							
Delaware.....	10,510	1,653	8,857	8,833	5,918	2,915	2,785
New Jersey.....	238,617	67,715	170,902	163,319	163,319	(¹)	(¹)
Pennsylvania.....	577,133	145,202	431,931	418,150	418,150	(¹)	(¹)
Region IV:							
District of Columbia.....	19,213	4,566	14,647	13,883	13,354	529	(¹)
Maryland.....	114,099	16,664	97,435	93,089	81,865	11,224	10,294
North Carolina.....	169,962	53,285	116,677	104,858	94,614	10,244	9,675
Virginia.....	124,824	18,422	106,402	106,255	92,882	13,373	11,586
West Virginia.....	100,622	17,942	82,680	79,495	76,274	3,221	(¹)
Region V:							
Kentucky.....	47,800	12,995	34,805	65,953	51,709	14,244	(¹)
Michigan.....	465,992	158,699	307,293	234,531	218,902	15,629	(¹)
Ohio.....	328,262	77,210	251,052	248,514	207,823	40,691	(¹)
Region VI:							
Illinois.....	512,735	69,234	443,501	465,184	337,456	127,728	93,377
Indiana.....	144,153	48,896	95,257	95,132	74,094	21,038	(¹)
Wisconsin.....	61,967	18,722	43,245	39,802	36,524	3,278	2,009
Region VII:							
Alabama.....	102,260	27,521	74,739	75,242	70,787	4,455	2,752
Florida.....	119,538	37,545	81,993	76,356	69,218	7,138	(¹)
Georgia.....	109,175	27,462	81,713	80,716	73,069	7,647	6,845
Mississippi.....	46,670	9,230	37,440	32,166	30,705	1,461	(¹)
South Carolina.....	66,734	22,768	43,966	38,943	32,510	6,433	3,727
Tennessee.....	134,566	27,674	106,892	85,408	77,748	7,660	3,016
Region VIII:							
Iowa.....	46,902	13,909	32,993	34,180	28,419	5,761	2,070
Minnesota.....	77,629	12,790	64,839	62,024	56,740	5,284	(¹)
Nebraska.....	15,475	2,739	12,736	12,376	11,342	1,034	445
North Dakota.....	5,928	759	5,169	4,760	4,255	505	295
South Dakota.....	5,945	785	5,160	5,141	4,535	606	(¹)
Region IX:							
Arkansas.....	73,095	19,807	53,288	53,288	50,108	3,180	450
Kansas.....	24,022	9,205	14,817	14,512	12,329	2,183	1,419
Missouri.....	129,119	51,432	77,687	74,823	58,471	16,352	11,046
Oklahoma.....	42,805	10,477	32,328	32,322	27,400	4,922	881
Region X:							
Louisiana.....	113,146	24,620	88,526	84,305	78,857	5,448	(¹)
New Mexico.....	15,167	2,997	12,170	11,766	10,466	1,300	945
Texas.....	196,948	93,750	103,198	127,754	108,522	19,232	(¹)
Region XI:							
Arizona.....	14,636	3,705	10,931	10,593	10,080	513	24
Colorado.....	43,793	5,683	38,110	40,002	33,842	6,160	4,886
Idaho.....	13,076	2,775	10,301	9,676	9,052	624	(¹)
Montana.....	19,674	4,259	15,415	14,063	14,063	(¹)	(¹)
Utah.....	18,967	7,810	11,157	10,274	8,833	1,441	901
Wyoming.....	7,857	1,408	6,449	6,530	4,154	2,376	2,004
Region XII:							
California.....	473,418	64,238	409,180	396,573	342,464	54,109	35,018
Nevada.....	7,049	882	6,167	5,553	5,126	427	127
Oregon.....	33,827	8,370	25,457	24,854	19,410	5,444	4,441
Washington.....	75,638	16,633	59,005	56,842	48,897	7,945	(¹)
Territories:							
Alaska.....	8,619	4,494	4,125	3,641	3,504	137	0
Hawaii.....	1,984	395	1,589	1,561	1,473	88	77

See footnotes on p. 630.

Continued Unemployment Compensation Claims Received, Weeks Compensated, and Benefits Paid, by States, July 1940—Continued

Social Security Board region and State	Benefits paid				Month and year benefits first payable	Amount of benefits since first pay- able ¹
	Amount ²	Type of unemployment				
		Total	Partial and part- total com- bined ¹	Partial only ¹		
Total.....	\$55,740,735	\$52,646,848	\$3,054,622			\$1,163,253,129
Region I:						
Connecticut.....	404,935	365,506	38,940	(¹)	January 1938.....	21,121,428
Maine.....	392,012	358,361	33,212	(¹)	do.....	9,871,700
Massachusetts.....	3,721,843	3,721,843	(¹)	(¹)	do.....	66,264,998
New Hampshire.....	195,248	160,854	34,394	(¹)	do.....	5,929,101
Rhode Island.....	860,376	783,818	76,558	(¹)	do.....	21,093,749
Vermont.....	68,930	54,948	3,966	\$3,104	do.....	2,076,175
Region II:						
New York.....	14,427,492	14,427,492	(¹)	(¹)	do.....	231,555,539
Region III:						
Delaware.....	74,405	55,772	18,630	17,806	January 1939.....	1,314,769
New Jersey.....	1,556,862 ³	1,556,862	(¹)	(¹)	do.....	25,717,474
Pennsylvania.....	4,479,646 ³	4,479,646	(¹)	(¹)	January 1938.....	156,704,883
Region IV:						
District of Columbia.....	121,362	116,848	3,627	(¹)	do.....	4,252,153
Maryland.....	780,327	718,216	61,908	55,646	do.....	20,479,841
North Carolina.....	505,920	480,004	25,724	23,263	do.....	15,412,669
Virginia.....	786,663	719,021	67,322	55,956	do.....	14,051,376
West Virginia.....	604,264	578,521	25,743	(¹)	do.....	18,759,124
Region V:						
Kentucky.....	454,118	388,629	64,098	(¹)	January 1939.....	7,779,323
Michigan.....	2,918,348	2,818,131	100,217	(¹)	July 1938.....	91,491,959
Ohio.....	* 2,329,670	* 2,129,090	* 200,580	(¹)	January 1939.....	* 40,882,831
Region VI:						
Illinois.....	5,248,267	4,277,691	960,780	650,983	July 1939.....	46,099,885
Indiana.....	956,331	842,372	113,857	(¹)	April 1938.....	32,911,610
Wisconsin.....	456,628	436,015	20,613	11,189	July 1936.....	18,104,739
Region VII:						
Alabama.....	478,646	456,092	22,260	12,989	January 1938.....	15,301,238
Florida.....	727,773	675,613	52,160	(¹)	January 1939.....	6,755,696
Georgia.....	501,055	473,714	27,341	24,330	do.....	5,912,683
Mississippi.....	193,961	187,714	1,628	(¹)	April 1938.....	4,250,171
South Carolina.....	245,967	217,991	27,896	14,870	July 1938.....	4,232,890
Tennessee.....	619,221	586,141	33,080	12,075	January 1938.....	14,540,124
Region VIII:						
Iowa.....	301,585	269,999	31,429	9,918	July 1938.....	10,682,603
Minnesota.....	598,010	557,405	40,306	(¹)	January 1938.....	22,746,410
Nebraska.....	109,820	102,716	7,104	2,713	January 1939.....	2,578,031
North Dakota.....	43,151	38,722	4,429	2,864	do.....	1,007,613
South Dakota.....	33,694	30,308	3,376	(¹)	do.....	660,432
Region IX:						
Arkansas.....	344,242	330,818	13,424	2,341	do.....	3,828,452
Kansas.....	126,086	112,052	14,034	8,580	do.....	3,668,785
Missouri.....	593,669	517,263	76,376	48,910	do.....	9,923,003
Oklahoma.....	394,699	274,332	30,367	3,578	December 1938.....	6,753,399
Region X:						
Louisiana.....	632,286	598,444	33,035	(¹)	January 1938.....	13,802,352
New Mexico.....	107,136	97,576	9,427	6,567	December 1938.....	1,953,478
Texas.....	951,246	860,935	89,417	(¹)	January 1938.....	26,364,502
Region XI:						
Arizona.....	114,011	110,072	3,939	130	do.....	4,237,210
Colorado.....	421,739	369,463	51,995	41,354	January 1939.....	6,382,172
Idaho.....	97,519	92,622	4,863	(¹)	September 1938.....	4,106,592
Montana.....	148,852	148,852	(¹)	(¹)	July 1939.....	3,104,152
Utah.....	115,584	105,368	10,216	6,426	January 1938.....	5,104,107
Wyoming.....	76,848	53,639	22,209	18,373	January 1939.....	2,093,860

¹ Benefits for partial unemployment are not provided by State law in Montana, New Jersey, New York, and Pennsylvania. In Massachusetts and Mississippi provision for such payments is not effective until October 1940. Of these, only Mississippi provides for payments of less than full weekly benefit amount for total unemployment; i. e., part-total unemployment.

² Includes supplemental payments, not classified by type of unemployment.

³ Adjusted to exclude returned and voided benefit checks.

⁴ Data for partial unemployment included with data for part-total unemployment.

⁵ Payments for part-total and partial unemployment are made for benefit periods of 1 quarter. The number of weeks represented by each such payment is determined by dividing the amount paid by the claimant's benefit rate for total unemployment.

⁶ Figures for July exclude 93 payments amounting to \$2,148 arising from recalculation of weekly benefit amounts and 264 payments for 673 weeks amounting to \$6,853 for payment of miners' claims resulting from labor dispute in 1939. Both amounts, however, are included in benefits since first payable.

Continued Unemployment Compensation Claims Received, Weeks Compensated, and Benefits Paid, by States, July 1940—Continued

Social Security Board region and State	Benefits paid				Month and year benefits first payable	Amount of benefits since first pay- able ¹
	Amount ²	Type of unemployment				
		Total	Partial and part- total com- bined ¹	Partial only ¹		
Region XII:						
California.....	\$5,417,354	\$4,918,588	\$477,656	\$300,263	January 1938...	\$102,767,397
Nevada.....	71,488	67,461	4,027	1,194	January 1939...	1,559,824
Oregon.....	276,790	236,361	39,600	30,992	January 1938...	13,055,834
Washington.....	688,674	622,293	66,381	(¹)	January 1939...	12,839,061
Territories:						
Alaska.....	51,680	50,366	1,314	0	do.....	685,361
Hawaii.....	15,002	14,838	664	595	do.....	480,371

See footnotes on p. 630.

SAVINGS AND EXTRA COMPENSATION PLAN OF INTERNATIONAL HARVESTER CO.

A SAVINGS, profit-sharing, and unemployment-income plan covering all employees, except those in managerial positions, of the International Harvester Co. and its affiliated companies in the United States and Canada was made effective May 1, 1940.¹ All employees may deposit savings under the plan and receive interest thereon after completing 1 year of service, and those having 3 or more years of service will be entitled to receive the company's special matching credits and extra compensation credits. The plan which revises the pension plan established in 1908 by the company, is designed to reduce the hazards of unemployment and to provide an old-age retirement annuity.

The savings plan provides for the creation of an individual account by each participating employee to which the company will contribute one-half of the deposits by the employee up to a maximum of 5 percent of the employee's salary or wages. Thus, if an employee deposits 5 percent of his wages the company will contribute 2½ percent. Additional deposits up to 10 percent of the salary or wage may be made by an employee and will receive the regular interest provided for under the savings plan, but no additional contribution will be made by the company on such amounts.

The savings of employees and the company contributions are to be deposited in one or more special bank accounts in the name of "International Harvester Employees Security Fund," the ownership of such accounts to be vested jointly in the group of employees concerned. No part of the fund so deposited shall ever revert to

¹ Employees Savings and Extra Compensation Plan. Chicago, International Harvester Co. and Affiliated Companies, 1940.

the company. In case the company payments are forfeited by an employee, the money is applied to the general fund for the benefit of all participating employees. The payments by the company to the fund are credited to the individual employee's account with the understanding that they may not be withdrawn except during unemployment or on retirement, to the extent provided for in the plan.

The profit-sharing feature of the plan provides that all employees having at least 3 years' service with the company may share in the profits whether or not they participate in the savings plan. For this purpose the company will set aside 25 percent of all earnings in excess of \$3 a share of common stock in any year. This amount will be divided among the eligible employees in proportion to the salary or wages received by them in the fiscal year, and will be credited to the accounts of the individual employees in the savings fund, and immediately becomes their property.

The income-aid feature of the program provides that in case of lay-offs causing the earnings of any employee in any week to fall below 60 percent of his normal full-time earnings, such an employee may withdraw funds from his savings account to bring his income for that week to the 60-percent level. Payments to an employee for this purpose are to be charged as far as possible in the proportion of two-thirds against his own deposits matched by the company and one-third against the company's matching payments. After these payments have been exhausted, subsequent withdrawals are to be charged against the restricted extra compensation credits made by the company, and further unemployment payments are to be charged against any amounts remaining to the employee's credit in the fund.

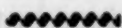
Upon retirement an employee will receive a refund retirement annuity or annuities purchased by the company from his deposits on which he has received matching credits from the company and from the company's matching credits and restricted extra compensation credits. He will also receive his own deposits which did not receive matching credits and which may be converted into an additional annuity if he so elects. If the company and the employee agree that some other form of settlement is more suited to his needs, payment and settlement of all or part of his total credits may be made in that form.

The rules governing the withdrawal of money by employees from their savings accounts provide that any employee may withdraw deposits upon which no matching contributions have been made by the company at any time, but if savings deposits toward which the company has contributed are withdrawn for any reason except unemployment or retirement, the company's contributions are forfeited.

One-half of the extra compensation from profit-sharing may be withdrawn from an employee's account at any time and for any

reason, but the balance or the "restricted extra compensation" may be withdrawn only in case of unemployment, retirement, or termination of service with the company.

If an employee resigns or is discharged for cause before retirement age, he will receive his savings and all extra compensation credits but will not receive the amount credited to him by the company on his savings. However, in the case of termination of employment because of lack of work or physical disability he will receive the entire amount to his credit in the fund, and in case of death before reaching the retirement age the entire amount in his account is payable to his estate.



AMENDMENT OF BRITISH UNEMPLOYMENT- INSURANCE LAW

AS a result of the rising cost of living in Great Britain and the creation of a certain amount of additional unemployment through restrictions by the Board of Trade on nonessential industries, the limitation of exports, and curtailment of luxury industries, contributions and benefits under the unemployment-insurance acts were increased by a law passed in the early part of July.¹ The law also brought a new class of persons—nonmanual workers earning more than £250 a year—under the insurance system.

In introducing the bill amending both the general unemployment-insurance system and the agricultural system, for its second reading, the Minister of Labor stated² that he made a review of the position of the unemployed soon after he took office and that he first dealt with the subject in relation to the cost of living. At the outbreak of the war in September 1939, the cost-of-living index was 155, and in July 1940 it had risen to 181—an increase of 17 percent. Since September, benefits had been increased under the statutory rules and orders for adult dependents from 7s. per week to 9s., and the benefit of 3s. per week for children had been increased to 4s. for the first two children. In view of the action already taken, it was considered that the right way to deal with the question was to increase the adult rate. In regard to unemployment arising from the curtailment of certain industries, the Minister stated that there was a danger of unemployment being created in what might be described as pockets or districts, which made it difficult to deal with from the point of view of the transference of the unemployed persons to munition work. The attempt was being made to transfer these unemployed as fast as possible, but inevitably there must be a time lag between closing an establishment and finding those who have been thrown out of employment, in order

¹ Great Britain, Ministry of Labor Gazette, July 1940

² Parliamentary Debates. Great Britain, House of Commons, July 3, 1940.

to train them and transfer them to an entirely new occupation. Although a coordinated plan had been worked out with the Board of Trade for dealing with this situation, there was still a very large residue of this created unemployment, and such unemployed persons must be maintained.

The inclusion of nonmanual workers with incomes ranging from £250 to £420 a year, has been agitated by these workers, through their trade-union organizations, for years. The insurance of this new class, the Minister stated, was justified altogether apart from the war, but many of the occupations of these people had been completely disturbed as a result of the war, and their inclusion at this time was justified not only by present conditions but also by conditions which will develop after demobilization, when millions of men will have to be resettled in industry.

The amendment provides that weekly rates of benefit under the general system shall be increased by 3s. for adults (or to 20s. for men and 18s. for women); and by 2s. in the case of young men and young women aged 18 and under 21 (or to 16s. and 14s., respectively). The rates for boys and girls are not changed.

The weekly rates of agricultural benefits are increased by 3s. in the case of men (or to 18s.), and by 2s. for women and young men (or to 15s. in each case), while the rates for young women are increased by 2s. (to 12s.). The maximum weekly rate, including dependents' allowances, is increased from 35s. to 41s. (the bill had provided for a maximum of 38s. but because of the establishment of a 48s. minimum weekly wage on a national basis, the maximum weekly benefit was raised to 41s.).

The waiting period before the payment of unemployment benefit under the general act, which, since April 1937, has been 3 days of unemployment out of any 6 consecutive days, is reduced to 2 days.

Under regulations issued by the Minister of Labor in July,³ it is provided that a man may be disqualified from receiving unemployment benefit for 6 weeks if he refuses to take a job which he is directed to take by the Minister. The new order—Unemployment Insurance Emergency Powers (Amendment, No. 2) Regulations, 1940—brings the unemployment-insurance provisions into line with the Minister's powers to direct persons to do work of national importance which he thinks them capable of performing. The period of disqualification may be shortened by the Unemployment Insurance Statutory Authorities, and there is the usual right of appeal to the Court of Referees. Lower standards of pay and less favorable conditions will not be allowed as an excuse for declining a job, nor will it matter whether the job is in a man's usual occupation. The period in which a man can hold out for better rates and conditions at the expense of the unemployment

³ The Manchester Guardian, July 15, 1940, p. 8.

fund is shortened, the regulations providing that if the work is of national importance and is at the standard rate, it must be accepted within 2 weeks at the longest. The former rule that an applicant for unemployment benefit can be required to enter an approved training course only for the purpose of fitting him for entry into or return to regular employment is abolished. Since training for work of national importance would not necessarily be for such a purpose, it is obvious, the Minister stated, that if under penalty a man can be required under the defense regulations to enter a given employment, it would be anomalous if on his refusing to enter training as a necessary preliminary to such employment, he could continue to be entitled to unemployment benefit.

The weekly rates of contributions (other than agricultural contributions) are increased by 1 penny for each of the three parties—the State, the employer, and the worker—or to 10d. for men aged 21 years and over, 9d. for women aged 21 and over, 9d. for young men 18 and under 21, and 8d. for young women. The weekly rates under the agricultural scheme are increased by a halfpenny—or to 3½d. for men aged 21 years and over, to 3d. for women aged 21 years and over, and young men between the ages of 18 and 21, and to 2½ d. for young women aged 18 to 21. These rates are effective up to July 6, 1942, after which they will be increased ½d. for employers, employees, and the State.

The new rates of benefit became payable August 1, 1940, and the new contribution rates were effective as of August 5.

The general unemployment-insurance system included, among excepted employments, nonmanual labor remunerated at a rate exceeding £250 a year. This limit is now raised to £420 a year, and the inclusion of this new class of insured persons will become effective September 2, 1940. Benefits will be payable after 30 contributions have been paid, and there is a maximum benefit period of 180 days. Effective September 2, 1941, persons insured under this section of the act will also be entitled to aid under the assistance scheme, after benefits under the insurance scheme are exhausted.

Youth in Industry

JUNIOR EMPLOYMENT SERVICES, MARCH 1936 TO JULY 1940

IN 198 cities of 41 States special employment services for youth are in operation as a result of the National Youth Administration's work. In 32 of the cities in which the NYA previously assumed the financial responsibility for these activities, the State employment services meet such expense in part or in whole; in 101 cities, the State employment services have junior employment divisions, based on the NYA procedure but functioning on their own funds; and in 65 cities the NYA still finances such activities.

Beginning March 1936, these junior employment services have been carrying on for from 2 to 52 months. The following table¹ summarizes their work:

Activities of Junior Employment Services, March 1936 to July 1, 1940

Registrants, interviews, and placements	By July 1, 1940, in services func- tioning from 2 to 52 months	In June 1940
Number of young persons registered.....	1 791, 097	35, 145
Number of interviews held personally.....	2, 658, 608	110, 264
Number of employers visited or visited and solicited for jobs.....	142, 077	1, 981
Number of placements in private industries.....	331, 320	13, 222
Percent of new registrants—		
Under 18 years of age.....	24	29
Between 18 and 21.....	61	54
Between 21 and 25.....	15	17
Who had worked before.....	69	64
Who had never worked.....	31	36
With only 8th-grade education or less.....	19	11
With some high-school training.....	34	31
High-school graduates.....	46	57
College graduates.....	1	1

¹ Excludes applicants doing work, who had previously registered.

² Visited by counselors.

NYA OUT-OF-SCHOOL WORK PROGRAM, 1940-41²

THE allocation of \$67,884,000 among 48 States, New York City, and the District of Columbia, to operate the 1940-41 out-of-school work program of the National Youth Administration, was announced by

¹ Data are from unpublished material furnished to the Bureau of Labor Statistics by the National Youth Administration.

² National Youth Administration. Press releases of July 1 and 2, 1940.

the NYA Administrator on July 1, 1940. According to the act appropriating this amount for the fiscal year 1940-41, all funds for the NYA work program must be allocated among the States on the basis of their youth population as related to the total youth population of the United States.

These allotments will make it possible to employ young people "between the ages of 18 and 24, inclusive, on publicly cosponsored projects designed to provide youth with work experience and basic training, and at the same time provide useful services or facilities to the community."

In the fiscal year 1940-41 the National Youth Administration plans increasingly to emphasize projects which furnish work experience and fundamental training in mechanical occupations. Experience of this character will facilitate the preparation of young persons for employment in industries which will expand as an outcome of increased production for the defense of the Nation.

In the field of health, also, the NYA has made significant contributions, and its activities in this connection will be greater during the coming year. Several hundred thousand young persons have been given physical examinations, and in cooperation with medical officers in their respective communities arrangements have been made for follow-up treatments. In the current year approximately 300 projects have been operated in the interest of public health and hospital aid.

At the present the NYA is operating 1,632 shops—including wood-working and automotive, airplane, mechanical and metal, radio and electrical, and allied work—which employ 38,327 young persons. Existing facilities can be enlarged without additional equipment, to furnish shop employment and experience for 73,930 young people.

During the current fiscal year the National Youth Administration has been providing part-time employment for an average of 270,000 needy young people each month. Because of the high turn-over rate on NYA work projects, however, about 550,000 different young people will have been employed in the course of the current year. The value of NYA work experience as a background for private jobs is shown by the fact that about one-third of the young people who leave NYA employment do so to go to work in private industry. Out of a total of approximately 280,000 currently employed on NYA projects, 250,085 are engaged in activities which have a close relationship to the needs of national defense.

Among the types of projects to be operated in the fiscal year 1941 are: Construction and repair of public buildings; shop, metal, and mechanical work; street and highway construction and repair; improvement of grounds around public buildings; hospital and public-health work; conservation; the establishment of facilities for recreation; and related pursuits. The projects undertaken are outside the normal budgets of the cosponsoring agencies and do not displace persons who are regularly employed.

The allotment to each of the States for the fiscal year 1941 is given in the following table:

NYA Allotments, 1940-41, for Out-of-School Work Program

Area	Allocation	Area	Allocation
Alabama.....	\$1,607,497	Nebraska.....	\$749,235
Arizona.....	244,744	Nevada.....	43,521
Arkansas.....	1,103,227	New Hampshire.....	216,540
California.....	2,531,753	New Jersey.....	2,142,019
Colorado.....	541,230	New Mexico.....	238,311
Connecticut.....	821,636	New York City.....	3,983,254
Delaware.....	123,902	New York State.....	2,859,294
District of Columbia.....	278,906	North Carolina.....	1,924,669
Florida.....	833,760	North Dakota.....	394,781
Georgia.....	1,822,624	Ohio.....	3,441,153
Idaho.....	230,945	Oklahoma.....	1,438,106
Illinois.....	4,094,463	Oregon.....	482,084
Indiana.....	1,641,786	Pennsylvania.....	5,072,596
Iowa.....	1,250,057	Rhode Island.....	353,115
Kansas.....	1,004,048	South Carolina.....	1,078,879
Kentucky.....	1,399,291	South Dakota.....	376,940
Louisiana.....	1,271,038	Tennessee.....	1,567,161
Maine.....	377,724	Texas.....	3,568,255
Maryland.....	834,698	Utah.....	289,062
Massachusetts.....	2,119,947	Vermont.....	173,662
Michigan.....	2,521,624	Virginia.....	1,378,478
Minnesota.....	1,332,641	Washington.....	803,936
Mississippi.....	1,239,694	West Virginia.....	904,182
Missouri.....	1,923,484	Wisconsin.....	1,512,555
Montana.....	272,419	Wyoming.....	124,069

On July 2, announcement was made of the establishment of the NYA work projects program for out-of-school young people in Alaska and the Virgin Islands and the continuation of the Puerto Rican program which was inaugurated January 1940.

This is the first year the out-of-school program of the NYA has included the youth of Alaska and the Virgin Islands.

It is estimated that the allotment for Alaska—\$27,005—will make it possible to employ from 50 to 150 young persons a month, and that the allotment for the Virgin Islands—\$72,000—will make it possible to employ an average of from 300 to 500 a month.

Puerto Rico's allotment is \$750,000, which it is estimated will furnish jobs for an average of from 4,000 to 5,000 needy young people each month.

New Provision Concerning Eligibility

The 1941 Labor-Federal Security Appropriation Act provides that a youth shall be eligible for certification to the NYA out-of-school work program "if he is in need of employment, work experience, and training."²

Previously, under the various relief acts, the needs of the whole family had to be considered on a budget basis before one of its young members could be certified to the NYA, and the great majority of all NYA youths have been members of families on relief. The new definition for eligibility will make it possible to reach marginal groups

² National Youth Administration. Press release of (PR 103) July 31, 1940.

and to assign a young person to an NYA project on the basis of his need for employment and his suitability for the kind of work to be done on the project. Under this regulation it is expected that NYA offices will register a large number of additional young people for the NYA program in the current fiscal year. The ages for eligibles remain the same—18 to 25. NYA State administrators have been directed to announce the going into effect of this new regulation to employment services, county agricultural agents, 4-H clubs, service clubs, the Y. M. C. A., and all other organizations and individuals that may be in a position to recommend young persons for employment.

Women in Industry

COMPARATIVE EARNINGS AND HOURS OF WOMEN AND MEN, MARCH 1940

WOMEN had higher average hourly earnings in March 1940 than in March of the preceding year in nearly all of the more important woman-employing manufacturing industries. The 30-cent minimum prescribed by the Fair Labor Standards Act no doubt had its influence in raising the averages. Women had an increase of 10 percent in average hourly earnings in the cotton-dress industry and of 6 percent in the cotton-goods, candy, women's undergarments, rubber boots and shoes, and hosiery industries. Employment of women in manufacturing industries increased 2 percent from the spring of 1939 to the spring of 1940, and in some of the industries important to the defense program there was a greater increase.

These findings are based on an analysis by the United States Women's Bureau of pay-roll records, furnished by employers to the United States Bureau of Labor Statistics, for over 372,000 women in 22 large woman-employing manufacturing industries and for nearly 27,000 women in laundries and dyeing and cleaning plants. The reporting firms employ nearly two-thirds of the women in manufacturing. The 12 States covered by the reports¹ are leading manufacturing States, employing about three-fourths of all the women in manufacturing.

In every industry reported, women had lower earnings than men, and in half of these industries women's average hourly earnings were less than the lowest average for men, which was 43.8 cents in the cotton industry. Women's average weekly earnings were less than \$15 in practically half of the reported industries, their lowest average being \$13.05 in silk and rayon mills. The lowest weekly average for men was \$16.05 in cotton mills.

Women's hours were slightly less than those of men, usually averaging less than 40 a week and less than 35 in half of the industries covered. Men averaged less than 40 hours a week in most industries and less than 35 in a few.

¹ California, Connecticut, Illinois, Indiana, Massachusetts, Michigan, Missouri, New Jersey, New York, North Carolina, Ohio, and Pennsylvania.

Table 1 shows average hours and earnings of men and women in the large woman-employing industries in the 12 States in March 1940.

TABLE 1.—Average Hours and Average Hourly and Weekly Earnings in Selected Industries in March 1940, by Sex

[From reports by employers. Preliminary figures]

Industry	Women reported		Average week's earnings		Average hours worked ¹		Average hourly earnings ¹	
	Number	Percent of all reported employees	Men	Women	Men	Women	Men	Women
<i>Manufacturing</i>								
Textile industries.....	103,920	48	\$19.81	\$14.15	36.2	33.0	Cents 55.0	Cents 43.1
Cotton goods.....	26,828	38	16.05	13.35	36.6	34.1	43.8	39.1
Knit goods.....	38,179	64	25.64	15.22	36.3	33.3	71.0	46.0
Hosiery.....	23,081	57	26.14	15.59	35.8	32.5	73.0	48.2
Underwear.....	15,098	76	22.08	14.09	39.8	35.7	56.7	39.5
Silk and rayon.....	22,812	52	19.04	13.05	37.3	33.0	51.4	39.7
Woolen and worsted.....	16,101	40	21.81	14.89	34.7	30.9	62.9	48.4
Clothing industries.....	115,840	72	32.29	17.14	35.1	33.8	93.5	51.1
Men's clothing.....	65,666	68	28.55	15.56	36.0	34.4	79.4	45.2
Suits and overcoats, etc.....	27,119	54	29.82	17.39	35.4	33.9	83.9	51.2
Cotton; work; shirts and collars.....	38,547	83	22.82	13.72	38.7	34.8	59.1	39.2
Women's clothing.....	50,174	77	37.66	18.70	33.8	33.2	113.6	56.9
Undergarments, etc.....	17,514	87	30.70	15.80	37.3	34.0	80.4	45.8
Coats and suits.....	3,954	38	41.32	23.77	31.5	30.3	136.6	82.8
Dresses, cotton.....	12,663	92	27.30	14.20	39.8	35.7	69.3	38.3
Dresses, other.....	16,043	77	38.34	22.10	33.7	32.1	110.6	69.2
Food industries: Confectionery.....	13,901	57	25.10	14.86	39.9	34.5	62.7	42.8
Leather industries: Boots and shoes.....	29,190	47	21.92	14.38	35.2	34.3	61.3	42.0
Tobacco industries: Cigars.....	14,096	85	22.40	14.24	38.8	34.3	57.5	41.6
Paper and printing:								
Book and job.....	13,400	24	35.22	17.25	38.8	35.7	91.6	49.2
Paper boxes (set-up).....	6,718	62	23.74	14.30	39.7	35.5	60.0	40.1
Electrical industries:								
Electrical machinery and supplies.....	37,600	23	33.32	20.62	40.4	38.0	82.4	54.7
Radios and phonographs.....	13,676	48	28.25	16.64	38.0	33.2	74.5	50.3
Metal industries: Hardware.....	5,787	26	25.29	16.00	38.9	36.3	65.1	44.2
Rubber goods:								
Auto tires and tubes.....	3,389	15	34.54	20.84	33.9	31.1	102.9	67.6
Boots and shoes.....	4,892	51	28.45	19.43	38.9	37.5	73.3	51.9
Glass and pottery.....	9,735	20	27.82	15.52	37.1	35.0	75.9	44.6
<i>Nonmanufacturing</i>								
Laundries.....	23,549	66	28.43	14.68	46.4	39.9	60.8	36.8
Dyeing and cleaning.....	3,368	47	26.44	16.58	43.7	40.5	61.6	41.3

¹ Computed from smaller number of employees than total, since man-hours not reported for all.

The trends in employment, earnings, and hours of men and women, in the 24 woman-employing industries, during the year from March 1939 to March 1940, may be seen from table 2 which gives data for identical establishments.

TABLE 2.—*Changes in Employment, Earnings, and Hours in Identical Establishments, March 1939 to March 1940, by Sex*

[From reports by employers. Preliminary figures]

Industry	Percent of change ¹ from March 1939 to March 1940 in—							
	Number employed		Average week's earnings		Average hours worked ²		Average hourly earnings ¹	
	Men	Women	Men	Women	Men	Women	Men	Women
<i>Manufacturing</i>								
Textile industries.....	-2.7	-7.1	+0.4	-1.3	-2.4	-5.9	+3.2	+5.4
Cotton goods.....	+5.8	+4.8	+2.0	+2.1	-1.3	-4.0	+3.8	+6.5
Knit goods.....	-12.7	-7.6	-6.1	-3.2	-5.8	-7.7	-.8	+4.8
Hosiery.....	-18.1	-15.7	-6.4	-3.8	-6.3	-9.4	-.5	+5.7
Underwear.....	+10.4	+7.2	-3.1	-1.2	-.7	-2.7	-3.1	+1.3
Silk and rayon.....	-7.5	-14.9	+1.6	-3.2	-3.1	-7.8	+4.8	+5.1
Woolen and worsted.....	-3.5	-11.9	+4.1	+.3	+.8	-4.6	+5.4	+5.2
Clothing industries.....	+1.6	+3.8	-4.5	+1.2	-2.5	+.6	-1.0	+2.2
Men's clothing.....	+2.1	+4.4	-3.2	+2.3	-3.0	+.9	-.9	+2.7
Suits and overcoats, etc.....	+1.7	+2.0	-4.1	-3.4	-3.5	-5.3	-1.2	+1.9
Cotton; work; shirts and collars.....	+3.8	+6.5	+2.4	+10.8	-.5	+7.7	+1.5	+3.7
Women's clothing.....	+.5	+2.9	-5.9	+.4	-1.7	+.3	-1.1	+1.9
Undergarments, etc.....	+2.5	+2.1	+1.8	+2.3	-2.1	-1.7	+4.0	+5.9
Coats and suits.....	-.1	+.5	-13.3	-14.1	-5.7	-5.8	-3.1	-5.4
Dresses, cotton.....	+3.2	+3.4	+3.9	+8.8	-2.9	+1.1	+4.9	+9.7
Dresses, other.....	-.1	+3.8	+.4	+1.1	+3.1	+3.2	-.5	+.4
Food industries: Confectionery.....	+4.2	+1.3	-2.0	+5.7	-3.9	0	+.8	+6.0
Leather industries: Boots and shoes.....	-2.8	-3.8	-6.0	-7.9	-7.0	-9.9	+.7	+1.7
Tobacco industries: Cigars.....	-9.9	-4.5	+6.3	+.4	+1.0	0	+6.7	+1.1
Paper and printing:								
Book and job.....	+.5	+3.7	+.3	+.1	-.5	0	+.9	+.8
Paper boxes (set-up).....	+6.0	+4.6	-.9	+.6	-2.2	-2.2	+1.4	+1.8
Electrical industries:								
Electrical machinery and supplies.....	+19.1	+23.0	+8.2	+4.3	+6.9	+2.7	+.6	+1.9
Radios and phonographs.....	+12.6	+3.6	+13.0	-.7	+7.7	-4.4	+4.3	+3.6
Metal industries: Hardware.....	+9.7	+11.9	+4.2	+3.0	+1.3	+1.9	+2.7	+1.0
Rubber goods:								
Auto tires and tubes.....	+5.7	+7.7	+.5	-1.4	+.3	+.3	-.1	-2.0
Boots and shoes.....	-10.1	-19.5	-2.8	-5.3	-8.1	-10.6	+6.2	+5.8
Glass and pottery.....	+7.4	+18.0	+2.4	-5.0	0	-4.1	+2.7	-.4
<i>Nonmanufacturing</i>								
Laundries.....	+4.8	+3.2	+5.9	+2.5	+3.5	+.3	+2.2	+1.7
Dyeing and cleaning.....	+4.9	+.5	+4.7	+6.9	+1.1	+7.7	+3.4	-.2

¹ Based on identical firms.

² Computed from smaller number of employees than total, since man-hours not reported for all.

Housing Conditions

PRIVATE HOUSING IN GREENBELT TOWNS

SURPLUS land in the three suburban communities, known as "greenbelt" towns, constructed under the Resettlement Administration program to house low-income families, is to be made available for privately financed housing.¹ The Farm Security Administration, in announcing this decision, stated that Greenbelt, Md., which now has 885 dwellings, can be expanded to house 3,000 families; Greenhills, Ohio, having 676 homes, is sufficiently large for 2,000; and Greendale, Wis., with 572 units, can accommodate 750.

As all these communities were designed to permit considerable expansion; the sewerage plants, water systems, shopping centers, streets, and other facilities were built on a larger scale than was required for the number of dwellings erected at the beginning.

Private builders and other individuals or organizations have been invited by the Farm Security Administration to make proposals for development of the areas available for expansion in each community. The Administration stated that land will be leased for 99 years to builders who agree to erect a group of at least 200 homes. Individual residents, regardless of income, may lease or purchase the houses from the builder. In order to protect the general plan of the community, the Administration reserves the right to pass upon the plans and specifications for the buildings. In general, the new dwellings should have one or two stories and two or three bedrooms, and should range in cost from about \$4,500 to \$5,500. Utility services and all of the existing community facilities will be available to the new residents as well as to those already living in the communities.

The Director of the Resettlement Division of the Farm Security Administration believes that the greenbelt towns offer unusual opportunities to prospective home owners, since they are well equipped with utility systems, schools, recreational facilities, and business buildings. There are no evidences of blight, such as dumps and run-down neighborhoods.

¹ U. S. Department of Agriculture. Press release of July 18, 1940.

MULTIPLE DWELLINGS IN NEW YORK CITY

UNDER the multiple dwelling law of New York ¹ a multiple dwelling is defined as one which has accommodations for three or more families living independently of each other. This definition brings under the scope of the law everything from the meanest tenement to the most exclusive apartment hotel. The number of dwelling units provided, rather than their quality, is the criterion.

The law distinguishes between two classes of multiple dwellings: "Class A" dwellings which are occupied, as a rule, for residence purposes and not transiently; and "class B" dwellings which are usually occupied as the more or less temporary abode of individuals or families. The accompanying tabulation, which has been compiled from reports of the Division of Housing of the City of New York, is confined to class A multiple dwellings.² It thus includes tenements, flats, apartment houses, apartment hotels, bachelor and studio apartments, and all other types of multiunit dwellings intended for the use of more or less permanent tenants. It excludes such multiple units as hotels, lodging houses, rooming houses, boarding houses, clubs, and dormitories where the residents are predominantly transients.

In a densely populated area like New York City the importance and necessity of this type of housing are obvious. Of an estimated total of 1,890,618 dwelling units in New York City in 1939,³ 1,552,534 were in class A multiple dwellings. In other words, more than 82 percent of the dwelling units in New York City are included in the class A multiple dwellings shown in the accompanying table. In 1930 only 78 percent of the total dwelling units were of the class A type.

In the last decade the number of apartments in multiple dwellings has increased over 13 percent—from 1,368,691 in 1929 to 1,552,534 in 1939. This is a net change resulting from the erection of new buildings, additions to and changes in existing buildings, shifts of existing buildings between classes A and B, conversions, and demolitions.

To some extent the tabulation in this article represents an age distribution of housing facilities. All of the old-law tenements were constructed prior to April 1901. These buildings do not have to conform to the standards of more modern multiple dwellings in such matters as light and ventilation, and in many of them several families share toilet and bathing facilities. The proportion of the total apart-

¹ See New York, Acts of 1929, chapter 713.

² A similar tabulation for 1936 and 1937 was given in the Monthly Labor Review, October 1938 (p. 795).

³ New York. State Superintendent of Housing. Report, 1939. (Legislative Document (1940) No. 70, p. 30.)

ments in these old structures, the newest of which would now be almost 40 years old, has been reduced from 39.3 percent in 1929 to 30.7 percent in 1939. This decrease has largely been made up by new buildings erected since the passage of the 1929 law. Nearly 8 percent of the total apartments in 1939 were constructed within this 10-year period.

Between these extremes are the new-law tenements, which have all been built since April 1901, and the converted dwellings which were erected prior to 1929. Although the absolute number of apartments in new-law tenements was slightly higher in 1939 than in 1929, their relative importance has diminished. In 1939 only 54.7 percent of the apartments were in this category as compared with 60.6 percent in 1929. Apartments in dwellings converted into multiple units, which were negligible in 1929, furnished 5.3 percent of the total apartment accommodations in 1939.

The distribution of apartments among the five boroughs is very uneven, but has changed comparatively little during the past 10 years, even though the number of apartments has increased in each borough. In 1939, 39.1 percent of the apartments were located in Manhattan, as contrasted with only 0.2 percent in Richmond. The proportion in Manhattan has decreased 2.8 percent since 1929, but this has been made up almost entirely by an increase in the Borough of Queens.

The old-law tenements are concentrated largely in Manhattan and Brooklyn, which contained more than 92 percent of them in 1939. This proportion has not changed appreciably since 1929. These two boroughs likewise include virtually all of the apartment hotels, bachelor apartments, and studio apartments in the city.

On the other hand, Manhattan had less than its proportionate share of the newer apartments in 1939. Only 22.5 percent of the apartments constructed under the law of 1929 were located in Manhattan, although this borough contained 39.1 percent of all apartments in multiple dwellings in New York City. In 1939, 29.6 percent of these new apartments were in Brooklyn, 24.7 percent in Queens, 22.9 percent in the Bronx, and 0.3 percent in Richmond.

The buildings erected under the law of 1929 are much larger than the older buildings, having on the average 47.2 apartments per dwelling in contrast with 7.8 apartments per old-law tenement in existence in 1939. However, the number of apartments per converted dwelling was only 3.8, so that in 1939 the average number of apartments for all classes of multiple dwellings was still 11.3, as it was in 1929.

Apartments in Class A Multiple Dwellings in New York City, by Class of Building and Borough, 1929, 1938, and 1939¹

Class of building	Number of apartments			Number of multiple dwellings		
	1939	1938	1929	1939	1938	1929
New York City						
All classes.....	1,552,534	1,528,705	1,368,691	137,291	134,988	120,928
Old-law tenements ²	476,240	486,075	537,719	60,697	61,872	68,619
New-law tenements ³	848,630	848,885	829,894	52,146	52,188	52,011
Dwellings erected under law of 1929 ⁴	117,856	95,201	229	2,495	2,085	26
Converted dwellings ⁵	82,894	72,336	849	21,669	18,568	272
Apartment hotels, bachelor apartments ⁶	26,914	26,208	(7)	284	275	(7)
Borough of the Bronx						
All classes.....	336,550	331,043	296,352	18,918	18,774	15,723
Old-law tenements ²	30,109	30,104	32,262	4,337	4,353	4,738
New-law tenements ³	270,246	270,240	264,051	11,087	11,092	10,973
Dwellings erected under law of 1929 ⁴	27,023	21,735	21	563	457	6
Converted dwellings ⁵	9,181	8,964	18	2,931	2,872	6
Apartment hotels, bachelor apartments ⁶	0	0	(7)	0	0	(7)
Borough of Brooklyn						
All classes.....	473,932	462,225	408,669	67,197	64,808	57,839
Old-law tenements ²	136,985	138,591	149,922	28,953	29,296	31,724
New-law tenements ³	263,222	263,135	257,958	25,904	25,913	25,858
Dwellings erected under law of 1929 ⁴	34,846	30,199	33	901	824	9
Converted dwellings ⁵	38,379	29,821	756	11,429	8,768	248
Apartment hotels, bachelor apartments ⁶	500	479	(7)	8	7	(7)
Borough of Manhattan						
All classes.....	607,417	609,988	574,137	36,385	37,003	37,086
Old-law tenements ²	301,999	310,104	347,189	25,740	26,527	30,204
New-law tenements ³	230,318	230,683	226,873	6,762	6,789	6,864
Dwellings erected under law of 1929 ⁴	26,567	22,268	0	334	272	0
Converted dwellings ⁵	22,126	21,211	75	3,274	3,148	18
Apartment hotels, bachelor apartments ⁶	26,407	25,722	(7)	275	267	(7)
Borough of Queens						
All classes.....	131,215	122,158	87,308	14,205	13,855	9,928
Old-law tenements ²	6,095	6,208	7,142	1,410	1,437	1,650
New-law tenements ³	83,792	83,775	79,991	8,344	8,345	8,267
Dwellings erected under law of 1929 ⁴	29,102	20,681	175	689	524	11
Converted dwellings ⁵	12,226	11,494	0	3,762	3,549	0
Apartment hotels, bachelor apartments ⁶	0	0	(7)	0	0	(7)
Borough of Richmond						
All classes.....	3,411	3,291	2,225	586	548	352
Old-law tenements ²	1,052	1,068	1,204	255	259	303
New-law tenements ³	1,052	1,052	1,021	49	49	49
Dwellings erected under law of 1929 ⁴	318	318	0	8	8	0
Converted dwellings ⁵	982	846	0	273	231	0
Apartment hotels, bachelor apartments ⁶	7	7	(7)	1	1	(7)

¹ Includes all class A multiple dwellings under the jurisdiction of the Division of Housing of the City of New York. A class A multiple dwelling is one "which is occupied, as a rule, for residence purposes and not transiently."

² Erected prior to Tenement House Act of April 1901.

³ Erected under Tenement House Act of April 1901.

⁴ Erected under multiple dwelling law of April 1929.

⁵ A "converted dwelling" is one originally erected or designed to be used by only 1 or 2 families, but which is used or occupied as a multiple dwelling. This classification includes dwellings converted to multiple dwellings before the passage of the 1929 law as well as afterward.

⁶ Erected prior to multiple dwelling law of April 1929.

⁷ This classification was not shown in the report for 1929.

Vacations and Recreation

VACATIONS WITH PAY IN SOUTHERN CALIFORNIA ¹

By EVERETT D. HAWKINS and VICTOR V. VEYSEY, *California Institute of Technology*

ALTHOUGH vacations with pay have been granted to salaried employees for some time in the Los Angeles area, the practice of giving such vacations to wage earners has been largely a development of the years since 1935. This spread in the growth of paid vacations in southern California has been part of a movement throughout the United States and other industrial countries which has increased the number of vacation plans and broadened the coverage to include wage earners.² Both management and labor have come to realize the importance of vacations with pay in industries where the employment relation is relatively stable.

In order to discover vacation experience in one of the youngest, but most important industrial areas of the country, two different questionnaires were mailed during April and May 1940 to more than 400 trade-unions in Los Angeles County, and over 1,200 business establishments with plants or offices in Los Angeles County.

At the close of the tabulations (early in June), replies had been received covering 143 local trade-unions and 432 companies. The 206,750 employees reported by these companies and the great numbers of additional workers covered by the union replies represented a substantial segment of the working population of Los Angeles County, excluding those engaged in agriculture and domestic service. The returns from the two sets of questionnaires tended to supplement rather than duplicate each other. Only 62 firms reported plans for wage earners which were written into union agreements.

¹ This is a summary of a report prepared by Victor V. Veysey under the direction of Everett D. Hawkins (California Institute of Technology, Industrial Relations Section, Bulletin No. 2: Vacations with Pay in Los Angeles County, Pasadena, 1940).

² See *American Federationist*, April 1938 (pp. 405-8); *Monthly Labor Review*, June 1937 (pp. 1486-8), August 1938 (pp. 269-75), December 1938 (pp. 1225-38), June 1939 (pp. 1258-66), August 1939 (pp. 343-49), October 1939 (pp. 865-8), May 1940 (pp. 1128-39); National Industrial Conference Board, *Studies in Personnel Policy* No. 13: Developments in Company Vacation Plans (April 1939), and No. 21: Trends in Company Vacation Policy (April 1940).

Company Vacation Plans

Practically all of the companies included in this study grant vacations with pay and most of them do so on a formal, permanent basis. Of the 432 responding firms, 425 stated that they would give vacations to at least some of their employees in 1940. Formal, planned vacation programs were reported by 311 companies, or 72 percent of the replying firms, and 57, or 13 percent of the total indicated that vacations were granted under very informal arrangements. Replies from 48 companies stated that it was the custom to announce vacations anew each year, whereas 260 companies established their plan on a more permanent basis, making adjustments only at irregular intervals.

The 432 companies, which reported 206,750 employees on the average during 1939, were mainly small firms, and over half of them were engaged in manufacturing. Although the average number of employees per company was about 475, actually 68 percent of the reporting firms employed fewer than 250 persons each, or only 14 percent of all the persons reported. In contrast, the 18 largest companies, reporting over 2,500 employees each, employed 95,000 in 1939, or 46 percent of the total. These big firms were concentrated in the petroleum, aircraft, motion-picture, and public-utility industries. A broad classification of the 432 firms by industry indicated that 244 (57 percent) were engaged in manufacturing. Retail and wholesale trade and financial institutions followed with 72 (17 percent) and 56 (12 percent), respectively. A considerably smaller number of service firms, construction companies, public utilities, and common carriers was included.

Of the 206,750 workers employed by the reporting companies in 1939, almost one-half, or 101,098 employees, were definitely eligible for some form of vacation during 1939. The exclusion of certain grades of employees and the use of service requirements limited the number of those qualified for vacations. At least 83 percent of the employees eligible for vacation actually took them. In addition, 125 employees scattered through several industries and companies continued to work and received extra pay in lieu of vacations during 1939. In no case was this practice a general provision of the vacation policy, but was a special arrangement granted to a small number of employees.

More than 100 Los Angeles firms have adopted vacation plans for the first time since 1930; 184 reported definite starting dates before 1930. Few new vacation plans were established during the worst years of the depression. From 1934 to date, 94 companies introduced some sort of vacation policy. At least 8 companies are establishing a vacation plan for the first time in 1940. Comments on changes made since 1930 indicated that 39 companies were forced to suspend their plans during 1932 or 1933, and 5 other firms made their policies

less liberal during those years. Only a few of these companies failed to restore their original, or more liberal, vacation provisions after 1934 or 1935. In addition, 64 companies have supplemented their established plans since 1934 by granting vacations to wage earners for the first time. Only 2 firms abolished vacations for wage earners after 1933, and 1 company eliminated its vacation plan entirely in 1937.

Los Angeles firms reported a wide variety of procedures in determining the amount of vacation, the coverage, and the service requirements for eligibility. Just under one-half of the policies for salaried employees and wage earners provided uniform lengths of vacations for all employees of a particular class after a minimum service requirement (table 1). Slightly more than half graduated the length of vacation with service. The most common vacation provision for both wage earners and salaried employees was one graduated in two levels: 1 week for those with the minimum service requirement, and 2 weeks for those with longer service. A uniform length of 2 weeks was the next most common period for salaried employees. Provision of 1 week for all salaried employees was third. For wage earners uniform periods of 1 week were more frequently reported than 2 weeks.

TABLE 1.—*Types of Vacation Plans Used for Salaried Employees and Wage Earners by Los Angeles Firms, 1940*

Type of plan	Plans providing for salaried employees		Plans providing for wage earners	
	Number	Percent	Number	Percent
All types.....	425	100	262	100
Uniform types.....	203	48	128	49
Graduated, 2 levels.....	187	44	113	43
Graduated, more than 2 levels.....	35	8	21	8

The most usual minimum service requirement for both groups of employees was 1 year. Vacations were given to salaried employees after 6 months by 116 firms, but only 47 companies paid vacations to wage earners after the same period. One year was the most customary maximum service period in 2-level plans, and 2 years was the next most frequently used.

Although the usual requirements tended to coincide for both groups, many Los Angeles firms (1) provided longer service requirements for wage earners than for salaried employees, and (2) granted shorter vacations to wage earners than to salaried employees. In fact, the average cost of vacations with pay in 1939 for salaried employees, as reported by 240 companies, was 3.48 percent of the annual pay roll of that group. The average for wage earners in 120 firms was 2.72 percent.

Vacations were most usually granted in the months of June, July, and August, but 66 companies allowed vacations through the entire

year. A large majority of firms stated that they would permit winter vacations. Even in a temperate climate, these summer months are looked upon as most suitable, probably because they coincide with the public-school vacations.

Although the particular time set aside for vacations was usually determined by the management, special requests were almost always given consideration on their merits, insofar as operating conditions would permit. The most common method of establishing the order of choice for vacations was based on length of service with the company. In the case of salaried employees, 274 firms (73 percent) used a seniority basis, while 102 did not. For wage earners, this principle was just as popular, 154 companies using it, while 56 did not. Split vacations, accumulated vacations, and pay in lieu of vacation were looked upon with disfavor by companies.

All but 33 of the Los Angeles firms reported that they used a staggered vacation plan in which only a small percentage of the employees in any department were absent at one time, rather than a shut-down plan in which one or more departments were completely closed down for a designated period while all regular employees had a vacation.

An extra day was given to salaried employees by 166 out of 387 companies if a holiday occurred during the vacation period. Only 82 out of 217 firms did the same for wage earners. Six holidays were most frequently granted wage earners with pay: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas. Washington's Birthday and Armistice Day were given in a considerably smaller number of firms. Admission Day, Lincoln's Birthday, election day, Columbus Day, and Good Friday were paid for in only a few cases.

Trade-Union Vacation Plans

Out of 143 replies from local unions in Los Angeles County, 111 locals affiliated with 46 national labor unions reported that their parent organizations favored the principle of vacation with pay; 103 said that members in their unions were receiving vacations; and 64 of them pointed to 580 agreements including provisions for vacation with pay (table 2). Other unions were in process of negotiating for vacations when they answered the questionnaire, and two obtained vacation provisions in June 1940. Nearly 90 unions had discussed vacations in the process of collective bargaining. Of the 103 unions which stated that members in their locals received vacations with pay, over one-half (53) reported that "all" of their members were paid vacations. Fourteen stated that "most" of their members were granted vacations; 13, "some"; and 23, only a few.

TABLE 2.—*Distribution of Trade-Union Replies on Vacations With Pay by Industries in Los Angeles County, 1940*

Industry ¹	Number of local unions			
	Replied to questionnaire	National union favors vacations	Members receive vacations	Agreements include vacations
All industries.....	143	111	103	64
Agriculture.....	2	0	0	0
Manufacturing, metal and machinery.....	21	20	19	15
Manufacturing, food and beverages.....	11	10	10	10
Printing.....	9	8	4	2
Other manufacturing.....	8	7	5	3
Construction.....	27	12	14	3
Transportation, rail.....	5	5	3	1
Transportation, road.....	7	7	6	6
Transportation, water.....	6	5	5	5
Public utilities.....	5	5	5	2
Trade, retail and wholesale.....	4	4	4	4
Service, professional.....	6	4	5	2
Service, government.....	12	12	12	2
Service, personal.....	13	8	7	6
Not stated.....	7	4	4	3

¹ Each union is placed in only one industrial classification, although some of its members may actually be engaged in several industries. The classification follows that used by Carroll R. Daugherty in his book, *Labor Problems in American Industry*.

Agreements for vacations with pay have been obtained, as a rule, from those firms which employ a regular force of workers. In the building industry, where men are hired for the job only, vacations are not asked for by the unions, because, as one member put it, "We have too many vacations now. The only trouble is that they are without pay." On the other hand, where jobs are relatively steady, the principle of vacations with pay flourishes. Only 3 of the 27 unions in the construction industry had definite agreements covering vacations, although some members in 14 locals received vacation pay. Frequently these men were employed on government jobs, or in the maintenance departments of private companies. On the other hand, all 12 of the government unions reported that members received vacations with pay, although governmental bodies do not usually sign agreements with unions. Practically all of the metal and machinery unions, the food manufacturing unions, the road and water transportation unions, and the retail-trade unions which reported had definite agreements for vacations.³

The most frequent length of vacation in these union plans was 1 week, and the most usual service requirement was 1 year. Thirty-five locals reported a uniform 1-week rule, or one of its variants such as 2 percent of a year's pay, or a half day for each month of service. Twenty-seven used a 2-level graduated plan with a minimum of 1 week and maximum of 2 weeks, depending on the length of service of the employee. Fifteen other unions reported a uniform vacation period of 2 weeks after a year of service, and the 10 postal unions

³ Compare: California Department of Industrial Relations, Division of Labor Statistics and Law Enforcement. *Union Labor in California*, June 1939, San Francisco, May 1940, pp. 4-6, 12-14.

received $1\frac{1}{4}$ days' pay for each month of service, or 15 days for a full year. Only 3 unions reported service provisions graduated in 3 levels. No provision for vacations longer than 3 weeks was found. Unlike company plans, only 1 union reported different lengths of vacations for employees paid by the hour and by the week. Only 10 unions stated that their members might work and receive pay in lieu of vacation.

In 48 unions seniority was a factor in determining when an employee could secure his vacation. The wishes of the employee, his marital status, and period for school vacations were listed by a few unions as influencing the timing of vacations.

Forty-one local unions stated that if a holiday fell during the vacation period another day would be added to the vacation. Over 50 unions reported that holidays with pay were given members on 6 occasions—the same days which were paid for in company plans. The less important holidays likewise followed a similar pattern.



COMMUNITY RECREATION IN THE UNITED STATES, 1939

THE community-recreation movement made a steady advance during 1939, progress being shown in personnel, expenditures, facilities, and activities. The report of the National Recreation Committee for the year¹ covers the recreation service in 1,204 communities in which local funds were expended for recreation purposes under leadership or for the operation of major recreation facilities. Expenditures from local funds amounted to nearly 32 million dollars, an amount exceeded only in the years 1930, 1931, and 1932; but there was a decrease in the amount spent from emergency funds, especially for land, buildings, and improvements, which somewhat more than offset the increase in the amount spent from regular funds.

During 1939, 876 cities reported that 25,042 recreation leaders were paid from regular funds, exceeding the number employed in any year with the exception of 1931 when 25,508 leaders were employed. Of these workers, 14,632 were men and 10,410 were women. The number of workers on a full-time year-round basis—3,450—was larger than in any previous year. In 1929, women leaders outnumbered men, but in 1939 men represented 58 percent of all the workers reported. Altogether 11,661 volunteer leaders were reported by 320 cities, and other volunteers reported by 286 cities numbered 21,094. This total of 32,755 persons working as volunteers was by far the largest ever reported.

¹ Recreation, New York, June 1940. Year book number. [Annual report of the National Recreation Association.]

There was a total of 9,749 outdoor playgrounds under leadership reported by 792 cities, and there was a 27-percent increase in the number of playgrounds open under leadership throughout the year. There was a slight reduction in the number of playgrounds conducted for colored people. The total attendance of participants and spectators during the periods when the playgrounds were under leadership was 334,000,000, but this figure as well as the average daily summer attendance was smaller than in 1938. There were 1,666 recreation buildings reported for 395 cities, with a total attendance at 1,179 buildings in 300 cities of 58,967,564 persons. These figures cover attendance at recreation buildings of both white and colored people. Indoor-recreation centers located in buildings not used exclusively or primarily for community-recreation activities reported by 444 cities numbered 4,123 as compared with 4,059 centers reported for the previous year. Attendance at these centers has been increasing, and in 1939 it was 44 percent higher than in 1938. The majority of these centers were open three or more sessions weekly, with an average attendance for each of the centers of 18,000 for the year, as compared with an average attendance of 3,000 for those open less than three sessions per week.

As a result of the extensive construction program financed principally through emergency funds, the number of recreation facilities of many types has increased from year to year. In 1939 large numbers of horseshoe courts, softball diamonds, tennis courts, and handball courts were open for the first time. Other facilities showing growing popularity were archery ranges and shuffleboard courts, bathing beaches, bowling greens, golf courses, ice-skating rinks, outdoor swimming pools, and toboggan slides. Many activities showed a 50-percent increase in the number of different individuals taking part in them, while in the case of a few activities the participation increased two or three hundred percent. Special recreation activities included arts and crafts for children and adults, a large number of athletic activities, dancing, drama, music, outing activities, water sports, winter sports, and a large group of miscellaneous activities. The most popular activities based on the number of participants reported were swimming, skating, softball, basketball, baseball, horseshoes, tennis, volley ball, dancing and other social recreation, motion pictures, and hobby clubs or groups.

Cooperation

OPERATIONS OF CREDIT UNIONS, 1939

DATA collected by the Bureau of Labor Statistics indicate that during the year 1939 more than 1,000 new credit unions were formed, raising the total from 7,265 to 8,315. Of the associations which had been chartered up to the end of 1939 all but 29 were in active operation. These 29 included 8 which had received their charters but had not yet gone into operation, and 21 which were in voluntary liquidation. The associations chartered under the Federal act had increased at a faster rate during the year than those incorporated under the various State laws—nearly 18 percent as compared with 12 percent.

Information was obtained for 98.6 percent of the State credit unions in active operation and 89.3 percent of the Federal associations—or for 94.6 percent of both types combined.

Credit unions, as their name implies, are cooperative associations whose function is the supplying of credit to their members. Generally they serve small borrowers who can offer little or no security except their own personal integrity. When it is remembered that a very large percentage of all credit-union loans are "character loans," i. e., loans made without any security except the personal note of the borrower, it becomes evident how important the personal factor is.

On the basis of the information from reporting associations, it is estimated that the active associations had a combined membership of 2,421,000 at the end of the year and that they made about 2,000,000 loans during the year, aggregating \$240,500,000 and averaging about \$116 each. These figures represented increases of 25.3 percent in membership and of 29.1 percent in loans made over 1938.

As various analyses have shown, remedial loans, for such purposes as the payment of cost of sickness or death or accumulated debts, form a very large proportion of the total loans made. This is especially true of the early experience of nearly all credit unions. Later, as the organizations accumulate funds and the early cases of need are taken care of, they expand their lending to such other constructive purposes as tuition for educational courses, house repairs and improvements, payment of insurance premiums, taxes, etc.

Credit-union funds come in the main from the share capital provided by the membership. Obviously, not all of the members can be borrowers, and indeed a certain percentage of the members of all

credit unions never avail themselves of the credit facilities of the organization but join because of their desire to support the cause and because of the favorable returns on their investment.

The reporting associations had resources of \$193,000,000, of which share capital amounted to over \$160,000,000 and reserves nearly \$11,000,000. A net gain of \$6,700,000 was realized on the year's operations by the reporting credit unions and, out of this, dividends to the amount of over \$4,500,000 were returned to the members on their shares.

At the end of 1939 the States leading in number of credit unions were, in order, Illinois, New York, Wisconsin, and Pennsylvania. All of these had 500 or more associations. Illinois also was first in number of members, followed by New York, Massachusetts, and Pennsylvania; each of these States, and California, Ohio, and Wisconsin as well, had over 100,000 members. Massachusetts, an old credit-union State which, up to the end of 1938, had always led as regards amount of loans made, in 1939 yielded to Illinois. The latter State reported combined loans of over 27 million dollars, as compared with not quite 26 millions for Massachusetts. Loans aggregating over 25 million dollars were also made in 1939 by the credit unions in New York. Four other States (California, Ohio, Pennsylvania, and Wisconsin) reported loans during the year amounting to over 10 million dollars. Credit unions are now found in every State in the Union as well as in the District of Columbia and Hawaii.

The principle of open membership is one of the main tenets of Rochdale cooperation. By the very nature of credit-union operation, however, this principle has to be modified somewhat in credit cooperatives. In order to insure the safety of loans made, it is essential that the members know one another and thus be able to judge the trustworthiness of those who apply for loans. For this reason it is usually required by the statutes under which credit unions operate that the organizations shall be formed among persons having some common bond of employment, religious faith, association, etc., and that the membership shall be limited to persons within that group. Within this field, membership is open to all trustworthy persons.

The general survey of cooperative associations (including credit unions) made by the Bureau of Labor Statistics for 1936 indicated that 61 percent of the credit unions had been formed among the employees of industrial businesses, and not quite 25 percent were composed of public employees. No data on this point are available since 1936. It is known, however, that credit unions have become increasingly popular among the members of consumers' cooperatives and many have been formed by them in the past 3 years.

Additional evidence of mutual interest between the credit union movement and that of general consumers' cooperatives was given by

the affiliation, as a fraternal member, of the Credit Union National Association with the Cooperative League of the U. S. A. in March 1939.

Geographical Distribution of Credit Unions

The geographical distribution of 8,315 credit unions at the end of 1939 is shown in table 1. These include all associations chartered under State and Federal laws. In addition there are known to be a few unchartered associations—probably totaling not more than 25—formed before the passage of the credit union act in their States; no data are available for these.

TABLE 1.—Total Number of State and Federal Credit Unions at the End of 1939, by States

State and type of charter	Number of associations	State and type of charter	Number of associations	State and type of charter	Number of associations
All States.....	8,315	Louisiana.....	102	Ohio.....	495
State associations..... ¹	4,771	State.....	25	State.....	276
Federal associations..... ²	3,544	Federal.....	77	Federal.....	219
Alabama.....	85	Maine.....	36	Oklahoma.....	82
State.....	65	State.....	3	State.....	45
Federal.....	20	Federal.....	33	Federal.....	37
Arizona.....	21	Maryland.....	61	Oregon.....	67
State.....	4	State.....	34	State.....	30
Federal.....	17	Federal.....	27	Federal.....	37
Arkansas.....	36	Massachusetts.....	475	Pennsylvania.....	515
State.....	21	State.....	402	State.....	77
Federal.....	15	Federal.....	73	Federal.....	438
California.....	405	Michigan.....	231	Rhode Island.....	33
State.....	157	State.....	165	State.....	18
Federal.....	248	Federal.....	66	Federal.....	15
Colorado.....	105	Minnesota.....	346	South Carolina: Federal.....	33
State.....	54	State.....	332	South Dakota: Federal.....	18
Federal.....	51	Federal.....	14	Tennessee.....	130
Connecticut: Federal.....	165	Mississippi.....	20	State.....	67
Delaware: Federal.....	12	State.....	7	Federal.....	63
District of Columbia.....	114	Federal.....	13	Texas.....	340
State.....	25	Missouri.....	351	State.....	87
Federal.....	89	State.....	325	Federal.....	253
Florida.....	142	Federal.....	26	Utah.....	50
State.....	42	Montana.....	24	State.....	28
Federal.....	100	State.....	8	Federal.....	22
Georgia.....	126	Federal.....	16	Vermont: Federal.....	5
State.....	89	Nebraska.....	186	Virginia.....	95
Federal.....	37	State.....	159	State.....	30
Idaho: Federal..... ³	30	Federal.....	27	Federal.....	65
Illinois.....	671	Nevada: Federal.....	4	Washington.....	188
State.....	574	New Hampshire.....	14	State.....	145
Federal.....	97	State.....	8	Federal.....	43
Indiana.....	291	Federal.....	6	West Virginia.....	61
State.....	146	New Jersey.....	216	State.....	18
Federal.....	145	State.....	50	Federal.....	43
Iowa.....	230	Federal.....	166	Wisconsin: State..... ⁴	563
State.....	225	New Mexico: Federal.....	11	Wyoming: Federal.....	17
Federal.....	5	New York.....	642	Hawaii: Federal.....	91
Kansas.....	96	State.....	184		
State.....	77	Federal.....	458		
Federal.....	19	North Carolina.....	143		
Kentucky.....	103	State.....	112		
State.....	94	Federal.....	31		
Federal.....	9	North Dakota: Federal.....	37		

¹ Includes 7 chartered but not yet in operation, and 21 associations in voluntary liquidation.

² Includes 1 association chartered but not yet in operation.

³ No associations had been chartered under State law at end of 1939.

⁴ Includes 7 chartered but not yet in operation, and 13 associations in voluntary liquidation.

⁵ Includes 8 associations in voluntary liquidation.

⁶ 1 Federal association chartered but not yet in operation.

Operations of Credit Unions in 1939

The membership and loans of credit unions in the various States are shown in table 2. As already noted, nearly 95 percent of all active credit unions are covered in this table.

TABLE 2.—Operations of Credit Unions in 1939, by States

State and type of charter	Number of associations		Number of members	Number of loans during year	Amount of loans—	
	Total	Reporting			Made during year	Outstanding, end of year
All States.....	8,315	7,841	2,300,422	1,971,851	\$229,874,347	\$148,773,153
State associations.....	¹ 4,771	4,677	1,454,435	1,306,654	158,848,287	111,305,503
Federal associations.....	² 3,544	3,164	³ 845,987	665,197	71,026,060	37,467,650
Alabama.....	85	82	22,220	⁴ 23,478	⁴ 1,580,396	1,252,499
Arizona.....	21	19	2,686	⁴ 2,273	⁴ 311,302	174,531
Arkansas.....	36	33	4,660	4,875	408,878	192,920
California.....	405	379	145,350	⁴ 98,909	⁴ 14,608,806	11,708,928
Colorado.....	105	102	21,082	⁴ 18,040	⁴ 2,134,589	1,387,522
Connecticut ⁵	165	151	48,309	36,021	3,302,263	1,690,604
Delaware ⁶	12	11	2,418	1,903	106,761	71,092
District of Columbia.....	114	107	61,103	⁴ 54,037	6,395,684	3,659,269
Florida.....	142	129	25,407	25,474	3,150,597	1,594,316
Georgia.....	126	124	33,130	⁴ 33,762	⁴ 2,510,841	2,371,636
Idaho ⁶	30	27	2,866	1,973	198,359	107,531
Illinois.....	671	663	253,474	⁴ 309,278	27,009,318	16,355,721
Indiana.....	291	277	⁴ 72,008	⁴ 60,635	⁴ 6,440,225	3,244,858
Iowa.....	230	196	37,065	34,159	3,802,636	2,476,464
Kansas.....	96	95	16,636	⁴ 13,239	⁴ 1,446,399	1,016,047
Kentucky.....	103	92	29,121	⁴ 38,176	⁴ 5,042,018	2,005,768
Louisiana.....	102	92	⁴ 25,292	⁴ 26,194	⁴ 3,657,499	1,473,416
Maine.....	36	32	7,343	5,713	606,674	425,904
Maryland.....	61	57	23,659	⁴ 21,237	1,910,358	1,050,078
Massachusetts.....	475	462	198,726	⁴ 186,587	25,982,697	15,983,042
Michigan.....	231	218	65,295	⁴ 42,359	⁴ 6,506,970	5,758,967
Minnesota.....	346	337	64,961	57,292	6,334,740	5,860,087
Mississippi.....	20	18	4,476	⁴ 3,910	⁴ 334,384	222,826
Missouri.....	351	334	81,044	⁴ 59,657	⁴ 7,478,092	5,867,109
Montana.....	24	21	⁴ 2,465	⁴ 2,740	⁴ 201,625	105,739
Nebraska.....	186	185	⁴ 30,039	⁴ 29,504	⁴ 3,919,328	1,871,511
Nevada ⁶	4	4	275	140	16,155	8,886
New Hampshire.....	14	14	3,956	⁴ 3,474	⁴ 617,677	453,335
New Jersey.....	216	206	71,084	60,969	6,108,919	3,209,676
New Mexico ⁶	11	9	1,218	1,214	137,640	53,603
New York.....	642	590	206,799	⁴ 158,899	⁴ 25,214,098	14,279,258
North Carolina.....	143	129	22,164	31,108	2,742,448	1,278,513
North Dakota ⁶	37	30	3,379	3,075	253,774	131,992
Ohio.....	495	467	143,198	⁴ 91,962	⁴ 10,674,079	8,126,204
Oklahoma.....	82	80	⁴ 12,650	⁴ 9,123	⁴ 1,205,859	837,975
Oregon.....	67	61	13,949	⁴ 13,436	1,424,369	999,567
Pennsylvania.....	515	472	153,132	114,506	12,107,497	7,054,580
Rhode Island.....	33	30	19,579	8,831	1,834,695	2,665,825
South Carolina ⁶	33	28	6,113	4,864	395,559	186,349
South Dakota ⁶	18	17	3,383	2,973	345,683	159,057
Tennessee.....	130	117	35,305	⁴ 32,922	⁴ 2,861,498	2,136,291
Texas.....	340	308	⁴ 76,895	⁴ 70,692	⁴ 8,840,453	⁴ 5,584,021
Utah.....	50	47	9,960	⁴ 7,947	⁴ 826,107	608,796
Vermont ⁶	5	3	210	236	10,765	4,479
Virginia.....	95	81	23,917	16,947	⁴ 1,765,047	⁴ 1,376,194
Washington.....	188	186	37,287	⁴ 28,346	⁴ 2,912,999	2,033,527
West Virginia.....	61	51	12,768	⁴ 7,616	⁴ 728,388	621,624
Wisconsin ⁶	563	563	133,504	⁷ 85,000	10,051,591	7,197,949
Wyoming ⁶	17	15	1,730	1,070	122,374	63,349
Hawaii ⁶	91	90	26,856	25,076	3,295,204	1,763,718

¹ Includes 7 associations chartered but not yet in operation, and 21 associations in voluntary liquidation.

² Includes 1 association chartered but not yet in operation.

³ Includes 276 for which reports were received too late to be allocated by States.

⁴ Partly estimated.

⁵ Federal credit unions only.

⁶ State associations only. No Federal credit unions in operation at end of year, although 1 had received a charter.

⁷ Estimated.

The information for the associations chartered under the Federal law and for all associations in the District of Columbia was furnished by the Credit Union Division of the Farm Credit Administration. Data for the State-chartered associations were supplied to the Bureau by the State officials having supervision over credit unions in the various States. From Idaho it was reported that no associations had been chartered under the State act which was passed only in 1939. In South Carolina where State officials have been in doubt as to their authority to require reports from credit unions, no action conferring such authority was taken by the Legislature in 1939. No charters had been issued for credit unions in South Dakota by the end of 1939.

In most States the data shown in table 2 for the State associations are for the calendar year. For Arizona, Florida, Indiana, Nebraska, and New Hampshire, the data are for a fiscal year ending in June or July 1939. Unless otherwise noted in the table, the figures in each State include both State and Federal associations.

Funds and Dividends of Credit Unions

Data on paid-in share capital, reserves, and total assets, as well as on net gain on the year's operations and dividends paid on shares, are shown in table 3. The information is practically complete, for all States, as regards capital, reserves, and total assets. The figures on net earnings and dividends paid, however, understate the real situation, for many State laws do not require information as to net earnings and a still larger number do not require the reporting of amounts returned in dividends on shares. Both of these figures would be much larger than shown in the table if complete reporting could have been obtained.

It will be noted that in some cases, notably for number and amount of loans made in 1939, the figures are partly estimated. In such States data were available for Federal but not for State-chartered associations. Estimates were therefore made on the basis of percent of increase from 1938 in the other data (number of associations, membership, loans outstanding, etc.), and on the average amount per loan as indicated by loans outstanding at end of year.

TABLE 3.—Resources, Profits, and Dividends of Credit Unions in 1939, by States

State and type of charter	Number of associations reporting	Paid-in share capital	Reserves	Total assets	Net earnings	Dividends
All States.....	7,841	\$160,032,414	\$10,926,108	\$193,300,538	\$6,701,458	\$4,516,586
State associations.....	4,677	116,994,824	¹ 9,664,917	145,803,444	² 4,564,708	³ 3,141,506
Federal associations.....	3,164	43,037,590	1,261,191	47,497,094	2,136,750	1,375,080
Alabama.....	82	1,223,036	126,106	1,413,319	⁴ 61,757	48,407
Arizona.....	19	168,236	6,222	197,741	⁴ 8,305	⁵ 5,320
Arkansas.....	33	207,996	12,621	236,235	13,692	8,451
California.....	379	12,192,848	482,714	14,599,521	⁴ 232,046	⁵ 142,368
Colorado.....	102	1,513,554	80,298	1,800,319	⁴ 11,886	⁵ 6,708
Connecticut ⁶	151	2,269,216	54,029	2,453,720	92,356	56,097
Delaware ⁶	11	78,276	2,475	85,704	4,441	2,587
District of Columbia.....	107	4,068,977	148,384	4,522,193	⁴ 218,818	165,692
Florida.....	129	1,706,071	73,124	1,944,380	⁴ 90,432	63,293
Georgia.....	124	2,091,728	177,046	3,096,774	⁴ 27,728	⁵ 18,546
Idaho ⁶	27	113,027	3,566	125,271	5,253	3,644
Illinois.....	663	20,074,622	1,250,864	21,688,582	1,086,990	759,360
Indiana.....	277	3,799,506	253,556	4,213,778	⁴ 77,634	⁵ 50,379
Iowa.....	196	2,609,851	263,493	3,076,440	162,372	104,370
Kansas.....	95	1,122,478	45,209	1,248,433	⁴ 5,591	⁵ 3,794
Kentucky.....	92	⁴ 1,526,141	⁵ 25,799	2,381,094	⁴ 767	⁵ 475
Louisiana.....	92	1,556,906	83,824	1,778,945	100,820	67,706
Maine.....	32	355,093	22,184	590,231	21,089	14,512
Maryland.....	57	1,137,555	110,516	1,325,831	65,143	41,072
Massachusetts.....	462	17,738,221	2,532,942	24,465,707	784,943	626,032
Michigan.....	218	6,266,491	247,666	7,463,161	128,333	⁵ 24,800
Minnesota.....	337	5,558,912	239,444	7,440,423	313,068	222,850
Mississippi.....	18	171,789	14,484	249,694	11,949	6,359
Missouri.....	334	6,536,676	⁴ 8,889	7,413,671	⁴ 15,950	⁵ 10,753
Montana.....	21	111,972	2,915	123,992	5,730	3,520
Nebraska.....	185	1,210,540	65,005	3,146,141	⁴ 85,050	⁵ 16,569
Nevada ⁶	4	9,701	324	10,879	351	297
New Hampshire.....	14	296,115	33,622	564,574	22,324	9,127
New Jersey.....	206	4,265,156	190,568	4,685,058	187,506	128,152
New Mexico ⁶	9	53,049	2,086	60,497	2,447	1,973
New York.....	500	16,815,022	2,163,364	20,438,066	866,315	607,767
North Carolina.....	129	1,087,489	78,192	1,522,676	78,044	⁴ 46,295
North Dakota ⁶	30	137,013	6,165	154,980	7,332	5,069
Ohio.....	467	⁴ 6,797,565	⁴ 197,021	⁴ 6,783,377	⁴ 106,461	⁵ 68,199
Oklahoma.....	80	371,635	20,134	1,000,514	⁴ 12,636	⁵ 9,074
Oregon.....	61	1,027,832	48,412	1,170,175	53,586	37,789
Pennsylvania.....	472	8,193,912	279,167	9,347,451	376,920	285,094
Rhode Island.....	30	1,958,171	12,902	3,661,485	⁴ 80,050	63,713
South Carolina ⁶	28	197,621	8,650	221,735	10,044	6,093
South Dakota ⁶	17	180,129	6,137	198,746	9,949	5,410
Tennessee.....	117	2,201,136	172,858	2,655,899	157,322	42,718
Texas.....	308	⁴ 5,915,207	⁴ 283,398	⁴ 6,684,208	⁴ 333,001	⁴ 235,556
Utah.....	47	613,030	39,296	699,064	⁴ 7,364	⁵ 5,122
Vermont ⁶	3	4,952	357	5,613	270	183
Virginia.....	81	1,207,703	143,496	1,647,514	56,020	43,560
Washington.....	186	2,370,509	132,908	2,584,613	88,471	53,647
West Virginia.....	51	518,005	36,197	692,947	⁵ 12,373	⁵ 6,967
Wisconsin ⁷	563	8,537,851	693,543	9,287,975	497,740	316,189
Wyoming ⁶	15	64,692	2,440	72,516	3,525	2,199
Hawaii ⁶	90	1,799,207	41,436	2,068,676	99,264	62,729

¹ 4,367 associations reporting.² 3,401 associations reporting.³ 3,079 associations reporting.⁴ Partly estimated.⁵ No data on this point for State associations.⁶ Federal credit unions only.⁷ State associations only. No Federal credit unions in operation at end of year, although 1 had received a charter.

Trend of Credit Union Development

Data gathered by the Bureau of Labor Statistics since 1929 show an almost unbroken record of credit-union expansion in nearly every State since its law was passed authorizing such associations. The tempo of development was greatly accelerated, however, by the passage of the Federal Credit Union Act in 1934.

The year 1939 represented the high point thus far, as regards number of associations, membership, and loans made, in every State.

The records for the years prior to 1936 are not sufficiently complete to permit estimates of total credit-union operation for the United States. Table 4 gives for the years beginning with that year the the total number of associations and estimates of total membership and loans made.

TABLE 4.—*Estimated Relative Growth of State and Federal Credit Unions, 1936 to 1939*

Item and year	Total	State-chartered associations	Federal-chartered associations
Number of credit unions:			
1936.....	5,437	3,575	1,862
1937.....	6,400	3,900	2,500
1938.....	7,265	4,250	3,015
1939.....	8,315	4,771	3,544
Membership:			
1936.....	1,209,902	893,932	315,970
1937.....	1,546,400	1,013,900	532,500
1938.....	1,931,400	1,241,000	690,400
1939.....	2,421,000	1,475,000	946,000
Amount of loans:			
1936.....	\$112,134,577	\$96,476,517	\$15,658,060
1937.....	\$139,355,200	\$102,770,200	\$36,585,000
1938.....	\$186,302,800	\$134,513,800	\$51,789,000
1939.....	\$240,500,000	\$161,000,000	\$79,500,000

Federation Among Credit Unions

In at least 43 States, the District of Columbia, and Hawaii the credit unions have a State-wide association or league. These State leagues are in turn affiliated to a Nation-wide association, the Credit Union National Association, with headquarters in Madison, Wis.

This year, for the first time, an attempt was made by the Bureau of Labor Statistics to obtain information for the State leagues. Of 45 organizations circularized, 32 furnished the information set forth in table 5. As the table indicates, 4,084 credit unions, with a combined membership of more than a million persons, are affiliated to these 32 State leagues; this represents 65.0 percent of all associations in those States.

TABLE 5.—Membership of State Credit Union Leagues, End of 1939

State	Year of formation	Affiliated credit unions		Membership of affiliated credit unions	State	Year of formation	Affiliated credit unions		Membership of affiliated credit unions
		Number	Percent of total				Number	Percent of total	
All States.....		4,084	65.0	1,073,531	Mississippi.....	1937	10	50.0	1,677
Arizona.....	1939	8	38.1	1,285	Missouri.....	1929	290	82.6	(²)
Arkansas.....	1935	35	97.2	4,622	Montana.....	1937	11	45.8	735
California.....	1935	249	61.5	81,185	New Jersey.....	1934	188	87.0	62,000
Connecticut.....	1935	96	58.2	30,100	New York.....	1922	420	65.4	175,000
Florida.....	1934	94	66.2	16,108	North Carolina.....	1935	92	64.3	12,000
Georgia.....	1935	93	73.8	15,500	North Dakota.....	1937	31	83.8	(²)
Idaho.....	1936	35	100.0	3,600	Oregon.....	1935	51	76.1	11,267
Illinois.....	1930	513	76.4	260,000	Pennsylvania.....	1934	258	50.1	75,000
Indiana.....	1923	175	60.1	43,500	Rhode Island.....	1935	16	48.5	14,641
Iowa.....	1930	147	63.9	25,599	South Carolina.....	1934	12	36.4	(²)
Kentucky.....	1934	83	80.6	22,500	South Dakota.....	1938	9	50.0	1,500
Louisiana.....	1935	78	76.5	19,523	Virginia.....	1935	51	53.7	12,000
Maine.....	1936	21	58.3	(²)	Washington.....	1935	143	76.1	(²)
Massachusetts.....	1934	75	15.8	30,111	West Virginia.....	1937	34	55.7	6,546
Minnesota.....	1930	315	91.0	65,000	Wisconsin.....	1934	375	66.6	60,000
					Hawaii.....	1937	76	83.5	22,712

¹ As reported by league; evidently includes some unincorporated associations.² No data.

Method of Operation of Credit Unions

As in all truly cooperative associations, each credit-union member has one vote only. At the annual meeting the members elect a board of directors to carry on the affairs of the association. The directors, in turn, elect from their own number the usual officers—president, vice president, secretary, and treasurer. In a credit union the treasurer is really the manager of the affairs of the association, having charge not only of the funds but also of making the loans to the borrowers. It is the treasurer who reports upon the status of the organization.

The treasurer is assisted by a credit committee of varying numbers, whose function is to pass upon applications for loans. To this committee are submitted all applications for loans. Practically all credit-union laws provide that in passing upon these applications a majority of the committee must be present and the vote must be unanimous. The personal integrity of the applicants, as well as their record as regards payment of debts—in other words, their credit rating—is investigated by the credit committee. This committee also takes into consideration the purpose for which the loan is desired. As practically all of the credit-union acts provide that loans shall be made only for provident purposes and purposes which promise to be of benefit to the borrower, the credit committee has the authority to refuse any loans which it regards as not constructive or as being for a purpose which would not aid the would-be borrower.

A second committee very important in the functioning of the credit union is the supervisory committee. Generally composed of three members, this committee has oversight of all of the operations of the organization. It is specifically charged with examining into the records and into the manner in which all of the officers, directors, and other committees are carrying out their functions, and it may, for reasons which seem sufficient to it, suspend them and carry the whole matter to a vote of the members assembled in general meeting.

Fundamentals of Cooperative Credit

In brief, the following are the principles upon which credit unions operate:

1. Membership open to persons of good character who have a community of interest with the credit-union group.
2. Low membership fees, and shares of low denomination which may be paid for in installments.
3. Democracy in government, with directors and committees elected by and responsible to the members.
4. One vote per member, irrespective of the number of shares held. No voting by proxy.
5. Loans to members only.
6. Loans to directors, officers, and committee members prohibited, except in amounts held in shares by them.
7. Loans made only for productive purposes and urgent needs.
8. Loans at moderate rates of interest, and interest generally payable only on unpaid balances.
9. Net earnings returned, as dividends, on all fully paid shares of stock.

Industrial Safety and Hygiene

CAUSES AND PREVENTION OF ACCIDENTS IN LUMBER MANUFACTURE, 1939

By MAX D. KOSSORIS and SWEN KJAER, *Bureau of Labor Statistics*

Summary

FOR years the logging, sawmill, and planing-mill industries have been conspicuous for high frequency and severity rates among the industries surveyed by the Bureau of Labor Statistics. To throw some light on the accident causes in these industries, a special questionnaire survey, covering the year 1939, was made in which 2,147 establishments cooperated. Of these, 388 were engaged in logging; 857 were sawmills, and 902 planing mills.

Since 1926, when the Bureau began to compile industrial-injury rates for manufacturing industries, logging has consistently had the highest number of injuries per million employee-hours worked. For the group surveyed, the 1939 frequency rate was 105.39, with 173 disabling injuries for every thousand workers. The severity rate, i. e. the days of disability charged per thousand hours worked, also was relatively high, 17.95.¹ Out of every 1,000 injuries, 15 resulted in death and 2 in permanent total disability; 30 in partial but permanent impairment, and 953 in temporary disability with an average time loss of 22 days per case.

Next to logging, sawmills have consistently had a noticeably high injury experience. The frequency rate of 48.78, although less than half that of logging, nevertheless was higher than that of any other manufacturing industry. The severity rate of 4.70 was only about one-fourth that of logging, but was high in comparison with many other manufacturing industries. In the sawmill industry every 1,000 disabling injuries included 5 deaths or permanent total disabilities, 46 permanent partial disabilities, and 949 temporary injuries averaging 19 days per case.

Planing mills had the least severe injury experience of the 3 industries studied. The group had a frequency rate of 32.69 and a severity rate of 2.91. There were 3 deaths or permanent total disabilities and

¹ The time-loss ratings used for fatal and permanent injuries are those approved by the American Standards Association in 1937. Because of the great variations in evaluating less than full impairment in cases of permanent injury, every such disability was rated at its full value.

67 partial but permanent impairments per 1,000 injuries. The average time loss per temporary total disability was only 16 days.

TABLE 1.—*Injury Rates in Lumber Manufacture, 1939*

Item	Logging	Sawmills	Planing mills
Number of establishments reporting	388	857	902
Frequency rate (average number of disabling injuries per million hours worked)	105.39	48.78	32.69
Severity rate (average number of days lost per thousand hours worked)	17.95	4.70	2.91
Disability distribution, per thousand injuries:			
Death and permanent total disability ¹	17	5	3
Permanent partial disability	30	46	67
Temporary total disability	953	949	930
Average time loss per disabling injury:			
Permanent partial disability	1,603	1,069	852
Temporary total disability	22	19	16

¹ Each death or permanent total disability is charged at 6,000 days.

More than half of the injuries in logging resulted from the workers being struck by or striking against objects, particularly axes, saws, and other hand tools. One-third of all deaths in this classification were caused by falling trees or parts of trees. The same type of accident (i. e., struck by or striking against) occurred in nearly 50 percent of all sawmill injuries, with logs or lumber involved most frequently. In planing mills, too, the same kind of accident predominated, accounting again for nearly half of all injuries; the objects involved most frequently, however, were power saws and other power-cutting machinery.

An analysis of injury experience according to establishment size indicates that in both logging and sawmills the largest establishments, as a whole, had the poorest injury experience. In planing mills, there was little difference between large and small establishments, although the 9 largest, each with 400 or more employees, had the lowest frequency rate. In each of the 3 types of industrial operations, however, great variation was found among individual establishments. A considerable number of both large and small establishments reported no disabling injuries at all, or very few. On the other hand, some establishments reported nearly as many injuries as employees. A study of individual accidents indicates that many injuries could have been prevented by the use of elementary safety precautions.

Type of Disabling Accident

In table 2 are shown the types of accidents and the objects in connection with which they occurred, for each of the three types of industries surveyed, as well as the days lost and the frequency and severity rates for each type.

The 388 logging establishments, with 26,964 employees who worked more than 44 million hours during 1939, had a total of 4,655 disabling injuries. Of these, 71 resulted in death, 7 in permanent total dis-

ability (such as the loss of both arms, both legs, a hand and a leg, etc.), and 141 in the permanent loss or loss of use of some part of the body, but not involving permanent total disability.

In 2,581 injuries, or 55 percent of the total, the injury was caused by the workers being "struck by or striking against objects." Although axes, saws, and other hand tools were involved in more than 1,100 injuries, or 24 percent of the total in logging, falling trees or parts of trees were the most frequently recurring cause of fatalities. Nineteen deaths and 1 permanent total disability were charged to this one cause alone, one-third of the 60 such disabilities falling in the classification "struck by or striking against objects." A characteristic accident occurred to a faller, who, while sawing down trees, was struck on the head by a falling limb and killed instantly.

Being caught in, on, or between objects resulted in injuries to 545 logging workers. Logs, chains, cables, and ropes were involved in more than half of the accidents of this type.

Falls from elevations were about twice as frequent as falls on level surfaces; falls from trees or logs accounted for 252 injuries, or more than half of the total in this type of accident.

The 4,655 disabling injuries in logging were charged with a total of nearly 793,000 lost days, of which nearly 70 percent were from disabilities caused by the struck by or striking against types of accidents.

The 857 sawmills had, during 1939, an average of 54,841 employees who worked nearly 98 million hours. Of the 4,768 disabling injuries, 22 resulted in death, 1 in permanent total disability, 219 in permanent partial impairments, and 4,526 in temporary total disabilities. The frequency rate for the entire group was 48.78 and the severity rate 4.70. In terms of employees, there were 87 disabling injuries for every 1,000 workers. And in terms of injuries, out of every 1,000, 5 resulted in death or permanent total disability, 46 in permanent impairment, and 949 in temporary total disability lasting on the average 19 days per case.

As in the case of logging, being struck by or striking against objects was the predominating type of accident in sawmills. About half of all the injuries in this category were connected with logs or lumber, and only one-sixth with power saws or other types of cutting machinery. Hand tools accounted for 5.5 percent of all sawmill injuries, about one-third less than power saws and other power cutting machinery.

Being caught in, on, or between objects resulted in injuries to 632 sawmill workers. Machinery was involved in about one-third of this type of accidents, and conveying equipment in about one-fourth. Falls ranked third in importance, with falls from elevations and on level surfaces of almost equal importance, the first accounting for 5.9 and the second for 6.0 percent of all sawmill disabilities.

The 902 planing mills had a frequency rate of 32.69 and a severity rate of 2.91. The 44,731 employees worked a total of more than 87 million hours and had 2,850 disabling injuries—64 per 1,000 workers. Seven of these injuries resulted fatally, 1 in permanent total disability, 190 in permanent partial impairment, and 2,652 in temporary total disability. The days lost totaled more than 253,000.

As in the other two lumber industries, the prevailing accident type, accounting for nearly half of all injuries, was "struck by or striking against objects." But unlike the situation in sawmills, logs or lumber ranked second to power saws and other power cutting machinery. Logs or lumber were involved in 14.5 percent of all planing-mill injuries, whereas power saws and machinery were indicated in almost 19 percent.

Workers were caught in, on, or between machinery in 5.7 percent of all injuries, in 2.1 percent between conveying equipment, and in other objects in 5.1 percent.

Injuries from falls on the same level exceeded those from elevations, accounting for 156 injuries, or 5.5 percent of the entire total, against 138, or 4.8 percent.

TABLE 2.—*Injury Rates, by Type of Accident, for 2,147 Lumber Manufacturing Establishments, 1939*

Type of accident	Number of injuries resulting in—			Total injuries		Total days lost		Injury rates	
	Death and permanent total disability ¹	Permanent partial disability	Temporary total disability	Number	Percent	Number	Percent	Frequency	Severity
Logging (388 establishments, 26,964 employees, 44,170,851 employee-hours worked)									
All types.....	(7) 78	141	4,436	4,655	-----	792,961	-----	105.39	17.95
Struck by or striking against.....	(6) 60	82	2,439	2,581	55.4	553,325	69.8	58.43	12.53
Falling trees, limbs, branches.....	(1) 20	24	483	527	11.3	188,864	23.8	11.93	4.28
Moving logs.....	(2) 14	13	348	375	8.1	115,929	14.6	8.49	2.62
Vehicles and machinery in motion.....	(3) 17	9	157	183	3.9	125,574	15.8	4.14	2.84
Axes, saws, and other hand tools.....	2	21	1,096	1,119	24.0	53,908	6.8	25.33	1.22
Other objects.....	7	15	355	377	8.1	69,050	8.7	8.54	1.56
Caught in, on, or between.....	5	37	503	545	11.7	79,919	10.1	12.34	1.81
Logs, or log and other object.....	3	12	184	199	4.3	41,335	5.2	4.51	.94
Chains, cables, ropes.....	0	12	145	157	3.4	11,473	1.4	3.55	.26
Machinery.....	0	7	58	65	1.4	7,088	.9	1.47	.16
Other objects.....	2	6	116	124	2.7	20,023	2.5	2.81	.45
Falls from.....	(1) 5	12	424	441	9.5	74,005	9.3	9.98	1.68
Trees or logs.....	2	6	244	252	5.4	36,030	4.5	5.71	.82
Platforms and ladders.....	(1) 1	3	32	36	.8	13,631	1.7	.82	.31
Other elevations.....	2	3	148	153	3.3	24,344	3.1	3.46	.55
Falls on same level.....	0	1	274	275	5.9	11,587	1.5	6.23	.26
All other accident types.....	8	7	646	660	14.2	69,714	8.8	14.94	1.58
Unclassified.....	0	2	151	153	3.3	4,411	.6	3.46	.10

¹ Figures in parentheses show the number of cases of permanent total disability included.

TABLE 2.—Injury Rates, by Type of Accident, for 2,147 Lumber Manufacturing Establishments, 1939—Continued

Type of accident	Number of injuries resulting in—			Total injuries		Total days lost		Injury rates	
	Death and permanent total disability	Permanent partial disability	Temporary total disability	Number	Percent	Number	Percent	Frequency	Severity
Sawmills (857 establishments, 54,841 employees, 97,748,744 employee-hours worked)									
All types.....	(1) 23	219	4,526	4,768	-----	450,849	-----	48.78	4.70
Struck by or striking against.....	12	134	2,090	2,236	46.9	255,790	55.6	22.87	2.62
Power saws or other power cutting machinery.....	1	88	267	356	7.5	82,940	18.0	3.64	.85
Hand tools.....	0	6	250	262	5.5	12,199	2.7	2.68	.12
Logs or lumber.....	8	29	1,086	1,123	23.6	110,421	24.0	11.49	1.13
Vehicles.....	1	4	88	93	2.0	16,477	3.6	.95	.17
Other objects.....	2	7	393	402	8.4	33,753	7.3	4.11	.35
Caught in, on, or between.....	2	60	570	632	13.3	84,342	18.3	6.47	.86
Machinery.....	1	27	212	240	5.0	43,537	9.5	2.46	.45
Conveying equipment.....	1	19	145	165	3.5	26,043	5.7	1.69	.27
Other objects.....	0	14	213	227	4.8	14,762	3.2	2.32	.15
Falls—one elevation to another.....	(1) 3	4	276	283	5.9	29,608	6.4	2.90	.30
Falls—on same level.....	0	3	285	288	6.0	9,578	2.1	2.95	.10
All other accident types.....	5	5	879	889	18.6	52,929	11.5	9.00	.54
Unclassified.....	1	13	426	440	9.2	27,602	6.0	4.50	.28
Planing mills (902 establishments, 44,731 employees, 87,179,585 employee-hours worked)									
All types.....	(1) 8	190	2,652	2,850	-----	253,452	-----	32.69	2.91
Struck by or striking against.....	2	145	1,227	1,374	48.2	144,796	57.1	15.76	1.66
Power saws or other power cutting machinery.....	0	125	413	538	18.9	91,425	36.1	6.17	1.05
Hand tools.....	0	2	94	96	3.4	2,316	.9	1.10	.03
Logs or lumber.....	1	7	404	412	14.5	21,692	8.6	4.73	.25
Vehicles.....	1	1	78	80	2.8	11,293	4.5	.92	.13
Other objects.....	0	10	238	248	8.7	18,070	7.1	2.84	.21
Caught in, on, or between.....	1	30	337	368	12.9	34,291	13.5	4.22	.39
Machinery.....	0	21	141	162	5.7	19,358	7.6	1.86	.22
Conveying equipment.....	0	2	59	61	2.1	1,545	.6	.70	.02
Other objects.....	1	7	137	145	5.1	13,388	5.3	1.66	.15
Falls—one elevation to another.....	1	6	131	138	4.8	25,110	9.9	1.58	.29
Falls—on same level.....	1	1	154	156	5.5	12,725	5.0	1.79	.15
All other accident types.....	(1) 3	7	673	683	24.0	34,187	13.5	7.83	.39
Unclassified.....	0	1	130	131	4.6	2,343	.9	1.50	.03

Geographic Differences

The States surveyed were classified into northern, southern, and western areas because of the different types of lumber felled and processed in these areas. Douglas fir, western pine, and redwood predominate in the western area. Southern pine is the most important tree in the South, although a very heavy proportion of the Nation's hardwood output, including oak, hickory, gum, and poplar, is also produced in this area. In the North there is a mixture of soft and hard trees, such as pine, spruce, hemlock, oak, birch, and maple.

In logging, as in the other two industries, the States in the northern area had the lowest frequency rate. The 101 establishments, with some 4,300 workers, had a rate of 96.67. The 165 southern establishments, with nearly 7,600 employees, had a rate of 102.32, and the 122 establishments in the western area, with 15,000 employees, had a rate of 109.58. More than 67 percent of all injuries in the northern group were due to being struck by or striking against objects, as compared with not quite 60 percent in the South and about 50 percent in the West. Within this accident classification, axes, saws, and other hand tools were involved in nearly 32 percent of all injuries in the North, 25 percent in the South, and slightly less than 22 percent in the West.

The caught in, on, or between objects type of accident in logging was more important in the South than in the other two areas. This type of accident caused nearly 17 percent of all injuries in the southern area, as against 10.2 percent in the Western and 7.4 percent in the Northern States. Machinery played a very minor part in these injuries. Falls, both from elevations and on the same level, were involved in a larger percentage of injuries in the West than in the other two areas, accounting for 19.5 percent of all injuries. The relative percentages for northern and southern establishments were 10.9 and 9.5.

The geographic ranking of sawmills, in terms of frequency rates, is the same as for logging: The northern mills had the lowest rate, 36.85; southern mills followed with 45.40, and western mills had the highest rate, 55.22. Slightly more than half of all injuries in southern and northern mills resulted from being struck by or striking against objects. In the western mills, this accident type occurred less frequently, resulting in not quite 42 percent of all injuries. Striking against or being struck by logs or lumber was the most outstanding classification in each of the three areas. Power saws and other power-cutting machinery, although far less important in terms of number of injuries, were in each area the largest single factor in bringing about permanent impairments. In the northern mills, 21 out of the total of 32 permanent injuries resulted from contact with such equipment; in the South, 31 out of 79; and in the West, 36 out of 108.

Falls of all types occurred about twice as frequently in the western sawmills than they did in the southern and northern mills. In the last two areas, falls resulted respectively in 8.3 and 8.8 percent of all injuries. The corresponding figure for northern sawmills is 15.6 percent.

For planing mills, the ranking of the three areas according to frequency rates was somewhat different. Again the northern mills had the lowest rate, 25.98, which was only about two-thirds of the rates of each of the other two areas. The western area, however,

had a slightly lower rate than the southern. The rates for these areas were 36.48 and 37.40.

As in the other two industries, being struck by or striking against objects was the predominant accident type. Unlike the situation in the other two industries, however, the percentage of injuries resulting from this type in planing mills did not differ greatly in the three areas. In the West, the percentage was 44.5, in the North, 48.8, and in the South, 50.4. But whereas only 15.4 of all injuries in southern mills, and 16.3 percent in western mills, resulted from contacts with power saws and other power-cutting machinery, the percentage in northern mills was 25.7—more than half again as high.

Falls accounted for 12.0 percent of all injuries in planing mills in the western area, 10.3 in the North, and 9.1 in the South. Being caught in, on, or between machinery was a fairly serious cause of injuries in northern mills, resulting in 6.3 percent of all injuries. The percentage for the South was 5.9, and that for the West, 4.7. Although in the southern and western areas there was not much difference between sawmills and planing mills in the percentage of injuries caused by machinery, the percentage of such accidents in northern planing mills, 6.3, was almost twice as high as that in northern sawmills, 3.7.

TABLE 3.—*Injury Experience in Lumber Manufacture, by Geographic Areas, and Type of Accidents, 1939*

WESTERN STATES¹

Type of accident	Number of injuries resulting in—			Total injuries		Total days lost		Injury rates	
	Death and permanent total disability ²	Permanent partial disability	Temporary total disability	Number	Percent	Number	Percent	Frequency	Severity
Logging (122 establishments, 15,063 employees, 23,974,128 employee-hours worked)									
All types.....	(4) 56	80	2,491	2,627	-----	522,859	-----	109.58	21.81
Struck by or striking against.....	(3) 43	45	1,230	1,318	50.2	362,118	69.3	54.98	15.10
Falling trees, limbs, branches.....	13	13	269	295	11.2	107,341	20.5	12.30	4.48
Moving logs.....	(2) 11	6	121	138	5.3	85,185	16.3	5.76	3.55
Vehicles and machinery in motion.....	(1) 12	5	69	86	3.3	85,551	16.4	3.59	3.57
Axes, saws, and other hand tools.....	0	10	654	564	21.5	24,382	4.7	23.53	1.02
Other objects.....	7	11	217	235	8.9	59,659	11.4	9.80	2.49
Caught in, on, or between.....	4	20	244	268	10.2	50,845	9.7	11.18	2.12
Logs, or log and other object.....	2	3	78	83	3.2	23,449	4.5	3.46	.98
Chains, cables, ropes.....	0	10	86	96	3.7	9,474	1.8	4.00	.40
Machinery.....	0	4	35	39	1.5	4,221	.8	1.63	.18
Other objects.....	2	3	45	50	1.9	13,701	2.6	2.09	.57
Falls from.....	(1) 4	10	310	324	12.3	57,502	11.0	13.51	2.40
Trees or logs.....	1	6	198	205	7.8	28,776	5.5	8.55	1.20
Platforms and ladders.....	(1) 1	3	25	29	1.1	13,553	2.6	1.21	.57
Other elevations.....	2	1	87	90	3.4	15,173	2.9	3.75	.63
Falls on same level.....	0	1	189	190	7.2	9,908	1.9	7.93	.41
All other accident types.....	5	3	421	429	16.3	39,561	7.6	17.89	1.65
Unclassified.....	0	1	97	98	3.7	2,925	.6	4.09	.12

See footnotes at end of table.

TABLE 3.—*Injury Experience in Lumber Manufacture, by Geographic Areas, and Type of Accidents, 1939—Continued*WESTERN STATES¹—Continued

Type of accident	Number of injuries resulting in—			Total injuries		Total days lost		Injury rates	
	Death and permanent total disability ²	Permanent partial disability	Temporary total disability	Number	Percent	Number	Percent	Frequency	Severity
Sawmills (221 establishments, 24,492 employees, 43,300,259 employee-hours worked)									
All types.....	(1) 10	108	2,273	2,391	-----	222,649	-----	55.22	5.14
Struck by or striking against.....	5	59	939	1,003	41.9	107,681	48.4	23.16	2.49
Power saws or other power cutting machinery.....	1	36	122	159	6.6	34,765	15.6	3.67	.80
Hand tools.....	0	2	125	127	5.3	4,880	2.2	2.93	.11
Logs or lumber.....	3	15	479	497	20.8	46,087	20.7	11.48	1.06
Vehicles.....	0	1	28	29	1.2	909	.4	.67	.02
Other objects.....	1	5	185	191	8.0	21,040	9.4	4.41	.49
Caught in, on, or between.....	0	32	273	305	12.8	43,976	19.8	7.04	1.02
Machinery.....	0	15	114	129	5.4	23,375	10.5	2.98	.54
Conveying equipment.....	0	8	66	74	3.1	11,540	5.2	1.71	.27
Other objects.....	0	9	93	102	4.3	9,061	4.1	2.36	.21
Falls—one elevation to another.....	(1) 1	4	169	174	7.3	15,275	6.9	4.02	.35
Falls—on same level.....	0	3	196	199	8.3	7,816	3.5	4.60	.18
All other accident types.....	3	3	499	505	21.1	30,356	13.6	11.66	.70
Unclassified.....	1	7	197	205	8.6	17,545	7.9	4.73	.41
Planing mills (169 establishments, 11,931 employees, 22,670,887 employee-hours worked)									
All types.....	(1) 2	36	789	827	-----	52,577	-----	36.48	2.32
Struck by or striking against.....	1	24	343	368	44.5	28,199	53.6	16.23	1.24
Power saws or other power cutting machinery.....	0	22	113	135	16.3	16,168	30.8	5.95	.71
Hand tools.....	0	1	24	25	3.0	611	1.2	1.10	.03
Logs or lumber.....	0	0	125	125	15.1	2,010	3.8	5.51	.09
Vehicles.....	1	0	24	25	3.0	6,328	12.0	1.10	.28
Other objects.....	0	1	57	58	7.0	3,082	5.9	2.56	.14
Caught in, on, or between.....	0	7	64	71	8.6	4,178	7.9	3.13	.18
Machinery.....	0	4	35	39	4.7	2,760	5.2	1.72	.12
Conveying equipment.....	0	0	10	10	1.2	111	.2	.44	(¹)
Other objects.....	0	3	19	22	2.7	1,307	2.5	.97	.06
Falls—one elevation to another.....	0	2	50	52	6.3	7,798	14.8	2.29	.34
Falls—on same level.....	0	0	47	47	5.7	646	1.2	2.07	.03
All other accident types.....	(1) 1	2	241	244	29.5	10,221	19.4	10.76	.45
Unclassified.....	0	1	44	45	5.4	1,535	2.9	1.98	.07

See footnotes at end of table.

TABLE 3.—Injury Experience in Lumber Manufacture, by Geographic Areas, and Type of Accidents, 1939—Continued

SOUTHERN STATES *

Type of accident	Number of injuries resulting in—			Total injuries		Total days lost		Injury rates	
	Death and permanent total disability	Permanent partial disability	Temporary total disability	Number	Percent	Number	Percent	Frequency	Severity
Logging (165 establishments, 7,580 employees, 13,369,437 employee-hours worked)									
All types.....	(3) 19	50	1,299	1,368	---	221,886	---	102.32	16.60
Struck by or striking against.....	(3) 14	29	777	820	59.9	154,452	69.6	61.33	11.55
Falling trees, limbs, branches.....	(1) 6	10	136	152	11.1	70,037	31.6	11.37	5.24
Moving logs.....	2	4	140	146	10.7	21,323	9.6	10.92	1.59
Vehicles and machinery in motion.....	(2) 5	3	68	76	5.6	37,340	16.8	5.68	2.79
Axes, saws, and other hand tools.....	1	8	336	345	25.2	17,156	7.7	25.81	1.28
Other objects.....	0	4	97	101	7.4	8,596	3.9	7.55	.64
Caught in, on, or between.....	1	16	211	228	16.7	25,388	11.4	17.05	1.90
Logs, or log and other object.....	1	8	76	85	6.2	14,687	6.6	6.36	1.10
Chains, cables, ropes.....	0	2	53	55	4.0	1,946	.9	4.11	.15
Machinery.....	0	3	22	25	1.8	2,811	1.3	1.87	.21
Other objects.....	0	3	60	63	4.6	5,944	2.7	4.71	.44
Falls from.....	1	1	86	88	6.4	11,872	5.4	6.58	.89
Trees or logs.....	1	0	30	31	2.3	6,764	3.0	2.32	.51
Platforms or ladders.....	0	0	4	4	.3	57	(¹)	.30	(¹)
Other elevations.....	0	1	52	53	3.9	5,051	2.3	3.96	.38
Falls on same level.....	0	0	42	42	3.1	923	.4	3.14	.07
All other accident types.....	3	4	161	168	12.3	29,073	13.1	12.57	2.17
Unclassified.....	0	0	22	22	1.6	178	.1	1.65	.01
Sawmills (414 establishments, 23,680 employees, 43,350,153 employee-hours worked)									
All types.....	12	79	1,877	1,968	---	180,288	---	45.40	4.16
Struck by or striking against.....	6	46	962	1,014	51.5	96,430	53.5	23.39	2.22
Power saws or other power-cutting machinery.....	0	31	112	143	7.3	23,906	13.3	3.30	.55
Hand tools.....	0	3	101	104	5.3	2,735	1.5	2.40	.06
Logs or lumber.....	4	9	521	534	27.1	47,879	26.6	12.32	1.10
Vehicles.....	1	2	52	55	2.8	11,428	6.3	1.27	.26
Other objects.....	1	1	176	178	9.0	10,482	5.8	4.11	.24
Caught in, on, or between.....	2	25	254	281	14.3	37,778	21.0	6.48	.87
Machinery.....	1	11	84	96	4.9	19,369	10.7	2.21	.45
Conveying equipment.....	1	10	68	79	4.0	13,842	7.7	1.82	.32
Other objects.....	0	4	102	106	5.4	4,567	2.5	2.45	.11
Falls—one elevation to another.....	2	0	84	86	4.4	13,748	7.6	1.98	.32
Falls—on same level.....	0	0	76	76	3.9	1,491	.8	1.75	.03
All other accident types.....	2	2	293	297	15.1	21,140	11.7	6.85	.49
Unclassified.....	0	6	208	214	10.9	9,701	5.4	4.94	.22

See footnotes at end of table.

TABLE 3.—Injury Experience in Lumber Manufacture, by Geographic Areas, and Type of Accidents, 1939—Continued

SOUTHERN STATES ¹—Continued

Type of accident	Number of injuries resulting in—			Total injuries		Total days lost		Injury rates	
	Death and permanent total disability ²	Permanent partial disability	Temporary total disability	Number	Percent	Number	Percent	Frequency	Severity
Planing mills (357 establishments, 15,282 employees, 30,371,002 employee-hours worked)									
All types.....	3	65	1,068	1,136	-----	100,421	-----	37.40	3.31
Struck by or striking against.....	0	54	519	573	50.4	55,686	55.5	18.87	1.83
Power saws or other power-cutting machinery.....	0	43	132	175	15.4	28,776	28.7	5.76	.95
Hand tools.....	0	0	44	44	3.9	885	.9	1.45	.03
Logs or lumber.....	0	4	210	214	18.8	10,117	10.1	7.05	.33
Vehicles.....	0	1	39	40	3.5	4,809	4.8	1.32	.16
Other objects.....	0	6	94	100	8.8	11,090	11.1	3.29	.37
Caught in, on, or between.....	0	10	171	181	15.9	16,949	16.9	5.96	.56
Machinery.....	0	7	60	67	5.9	11,229	11.2	2.21	.37
Conveying equipment.....	0	1	40	41	3.6	931	.9	1.35	.03
Other objects.....	0	2	71	73	6.4	4,789	4.8	2.40	.16
Falls—one elevation to another.....	0	1	44	45	4.0	4,983	5.0	1.48	.16
Falls—on same level.....	1	0	57	58	5.1	7,142	7.1	1.91	.24
All other accident types.....	2	0	206	208	18.3	15,028	15.0	6.85	.49
Unclassified.....	0	0	71	71	6.3	633	.6	2.34	.02

NORTHERN STATES ³

Logging (101 establishments, 4,321 employees, 6,827,286 employee-hours worked)									
All types.....	3	11	646	660	-----	48,216	-----	96.67	7.06
Struck by or striking against.....	3	8	432	443	67.1	36,755	76.2	64.89	5.38
Falling trees, limbs, branches.....	1	1	78	80	12.1	11,486	23.8	11.72	1.68
Moving logs.....	1	3	87	91	13.8	9,421	19.5	13.33	1.38
Vehicles and machinery in motion.....	0	1	20	21	3.2	2,683	5.6	3.08	.39
Axes, saws, and other hand tools.....	1	3	206	210	31.8	12,370	25.7	30.76	1.81
Other objects.....	0	0	41	41	6.2	795	1.6	6.01	.12
Caught in, on, or between.....	0	1	48	49	7.4	3,686	7.6	7.18	.54
Logs, or log and other object.....	0	1	30	31	4.7	3,199	6.6	4.54	.47
Chains, cables, ropes.....	0	0	6	6	.9	53	.1	.88	.01
Machinery.....	0	0	1	1	.2	56	.1	.15	.01
Other objects.....	0	0	11	11	1.7	378	.8	1.61	.06
Falls from.....	0	1	28	29	4.4	4,631	9.6	4.25	.68
Trees or logs.....	0	0	16	16	2.4	490	1.0	2.34	.07
Platforms and ladders.....	0	0	3	3	.5	21	(⁴)	.44	(⁵)
Other elevations.....	0	1	9	10	1.5	4,120	8.5	1.46	.60
Falls on same level.....	0	0	43	43	6.5	756	1.6	6.30	.11
All other accident types.....	0	0	63	63	9.5	1,080	2.2	9.23	.16
Unclassified.....	0	1	32	33	5.0	1,308	2.7	4.83	.19

See footnotes at end of table.

TABLE 3.—Injury Experience in Lumber Manufacture, by Geographic Areas, and Type of Accidents, 1939—Continued

NORTHERN STATES—Continued

Type of accident	Number of injuries resulting in—			Total injuries		Total days lost		Injury rates	
	Death and permanent total disability ¹	Permanent partial disability	Temporary total disability	Number	Percent	Number	Percent	Frequency	Severity
Sawmills (222 establishments, 6,669 employees, 11,098,332 employee-hours worked)									
All types.....	1	32	376	409	-----	56,912	-----	36.85	5.13
Struck by or striking against.....	1	29	189	219	53.5	51,679	90.8	19.73	4.66
Power saws or other power cutting machinery.....	0	21	33	54	13.2	24,260	42.6	4.87	2.19
Hand tools.....	0	1	30	31	7.6	4,584	8.1	2.79	.41
Logs or lumber.....	1	5	86	92	22.5	16,455	28.9	8.29	1.48
Vehicles.....	0	1	8	9	2.2	4,140	7.3	.81	.37
Other objects.....	0	1	32	33	8.1	2,231	3.9	2.97	.20
Caught in, on, or between.....	0	3	43	46	11.2	2,588	4.5	4.14	.23
Machinery.....	0	1	14	15	3.7	793	1.4	1.35	.07
Conveying equipment.....	0	1	11	12	2.9	661	1.2	1.08	.06
Other objects.....	0	1	18	19	4.6	1,134	2.0	1.71	.10
Falls—one elevation to another.....	0	0	23	23	5.6	585	1.0	2.07	.05
Falls—on same level.....	0	0	13	13	3.2	271	.5	1.17	.02
All other accident types.....	0	0	87	87	21.3	1,433	2.5	7.84	.13
Unclassified.....	0	0	21	21	5.1	356	.6	1.89	.03
Planing mills (376 establishments, 17,518 employees, 34,137,696 employee-hours worked)									
All types.....	3	89	795	887	-----	100,454	-----	25.98	2.94
Struck by or striking against.....	1	67	365	433	48.8	60,911	60.6	12.68	1.78
Power saws or other power cutting machinery.....	0	60	168	228	25.7	46,481	46.3	6.68	1.36
Hand tools.....	0	1	26	27	3.0	820	.8	.79	.02
Logs or lumber.....	1	3	69	73	8.2	9,565	9.5	2.14	.28
Vehicles.....	0	0	15	15	1.7	156	.2	.44	(²)
Other objects.....	0	3	87	90	10.1	3,889	3.9	2.64	.11
Caught in, on, or between.....	1	13	102	116	13.1	13,164	13.1	3.40	.39
Machinery.....	0	10	46	56	6.3	5,369	5.3	1.64	.16
Conveying equipment.....	0	1	9	10	1.1	503	.5	.29	.01
Other objects.....	1	2	47	50	5.6	7,292	7.3	1.46	.21
Falls—one elevation to another.....	1	3	37	41	4.6	12,329	12.3	1.20	.36
Falls—on same level.....	0	1	50	51	5.7	4,937	4.9	1.49	.14
All other accident types.....	0	5	226	231	26.0	8,938	8.9	6.77	.26
Unclassified.....	0	0	15	15	1.7	175	.2	.44	.01

¹ Includes Arizona, California, Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming.² Figures in parentheses show the number of cases of permanent total disability included.³ Less than 0.005.⁴ Includes Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, New Mexico, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.⁵ Less than 0.05.⁶ Includes Connecticut, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, and Wisconsin.

Size of Establishment

It is often claimed that, in general, the larger establishment has the better safety record. Whatever may be the merits of this claim as regards other industries, it did not hold true in the logging, sawmill, and planing-mill establishments surveyed. As is apparent from table 4, logging establishments with 100 or more employees had higher injury frequency rates than did the smaller establishments. In fact, the smallest establishments, with 1 to 24 employees, had the lowest rate, 85.54. The group with 50 to 99 employees had the second lowest rate, 90.63, and each of the other groups had frequency rates above 100.

In sawmills, too, the largest plants had the highest frequency rates. Mills with 200 to 399 workers had a rate of 53.34, and those with 400 or more workers a rate of 54.58. There was little variation in the frequency rate for smaller-size establishments, although within these the rate of 46.48 for the smallest-size group was somewhat higher than those of the other groups.

Only in planing mills did the largest-size group, i.e., with 400 or more employees, have the lowest frequency rate. Its rate of 29.42, however, was only slightly lower than that of any of the other size groups. As a whole, there was little difference between the frequency rates of small-, medium-, and large-size establishments.

TABLE 4.—*Injury Experience of Lumber Manufacturing Establishments, by Number of Employees, 1939*

Item	All es- tab- lish- ments	Establishments with classified number of employees					
		1-24	25-49	50-99	100-199	200-399	400 and over
Logging:							
Number of establishments	388	171	76	65	46	20	10
Number of employees	26,964	1,990	2,662	4,506	6,400	5,767	5,639
Employee-hours worked (thou- sands)	44,171	3,016	4,070	7,260	10,029	9,981	9,815
Disabling injuries	4,655	258	431	658	1,072	1,132	1,104
Frequency rate	105.39	85.54	105.90	90.63	106.89	113.42	112.48
Sawmills:							
Number of establishments	857	360	188	172	90	30	17
Number of employees	54,841	4,709	6,573	12,022	12,423	8,058	11,056
Employee-hours worked (thou- sands)	97,749	6,906	10,603	21,166	22,406	15,618	21,050
Disabling injuries	4,768	321	465	961	1,039	833	1,149
Frequency rate	48.78	46.48	43.86	45.40	46.37	53.34	54.58
Planing mills:							
Number of establishments	902	452	218	126	69	28	9
Number of employees	44,731	5,595	7,501	8,627	9,434	7,853	5,721
Employee-hours worked (thou- sands)	87,180	10,661	14,701	16,830	18,429	15,920	10,639
Disabling injuries	2,850	360	468	562	626	521	313
Frequency rate	32.69	33.77	31.83	33.39	33.97	32.73	29.42

Injury Experience of Individual Establishments

A comparison of establishments by size groups obscures the fact that considerable variations were found in the experiences of individual establishments, regardless of size. In logging, for instance, an establishment with 6 employees reported 6 disabling injuries. On

the other hand, an establishment with 109 employees reported no disabling injuries and one with 79 employees, only 2 such injuries. Again, an establishment with 552 workers had 124 injuries, but another establishment with 565 employees had 65 injuries.

The same variations were found in sawmills and planing mills. A sawmill with 191 employees had 48 disabilities, whereas another with 225 workers had only 3. Similarly, a planing mill with 823 workers reported 15 injuries, whereas one with only 35 employees had 22 injuries. In terms of disabling injuries per 100 workers, these establishments experienced ratios all the way from 0 to 100.

That injuries can be prevented is shown clearly in table 5. Out of the 2,147 establishments, 814 had no disabling injuries during 1939. In terms of employee-hours of exposure, these establishments represented slightly over 13 percent. Within the individual industries, the no-injury establishments in logging included 5.7 percent of the total employee-hour exposure; in sawmills, 12.4 percent; and in planing mills, 17.9 percent. A count of injury-free establishments includes 37 percent of the sawmills and 44 percent of the planing mills.

TABLE 5.—*Distribution of Disabling Injuries in Lumber Manufacturing Establishments, 1939*

Number of injuries per establishment	Number of—			Cumulative				
	Estab-lish-ments	Em-ployee-hours (thou-sands)	Injuries	Total			Percent of total	
				Estab-lish-ments	Em-ployee-hours (thou-sands)	Injuries	Em-ployee-hours	Injuries
Logging:								
None.....	99	2, 513	0	99	2, 513	0	5. 7	0
1-5.....	133	5, 084	296	232	7, 597	296	17. 2	6. 4
6-10.....	45	3, 343	336	277	10, 940	632	24. 8	13. 6
11-20.....	48	7, 255	746	325	18, 195	1, 378	41. 2	29. 6
21-30.....	22	3, 852	522	347	22, 047	1, 900	49. 9	40. 8
31-40.....	13	3, 627	474	360	25, 674	2, 374	58. 1	51. 0
41 and over.....	28	18, 499	2, 281	388	44, 173	4, 655	100. 0	100. 0
Total.....	388	144, 171	4, 655					
Sawmills:								
None.....	318	12, 135	0	318	12, 135	0	12. 4	0
1-5.....	330	22, 876	768	648	35, 011	768	35. 8	16. 1
6-10.....	90	11, 923	693	738	46, 934	1, 461	48. 0	30. 6
11-20.....	68	16, 472	1, 008	806	63, 406	2, 469	64. 9	51. 8
21-30.....	24	9, 516	588	830	72, 922	3, 057	74. 6	64. 1
31-40.....	10	5, 617	343	840	78, 539	3, 400	80. 3	71. 3
41 and over.....	17	19, 210	1, 368	857	97, 749	4, 768	100. 0	100. 0
Total.....	857	97, 749	4, 768					
Planing mills:								
None.....	397	15, 571	0	397	15, 571	0	17. 9	0
1-5.....	357	25, 947	790	754	41, 518	790	47. 6	27. 7
6-10.....	74	13, 173	584	828	54, 691	1, 374	62. 7	48. 2
11-20.....	48	15, 147	656	876	69, 838	2, 030	80. 1	71. 2
21-30.....	13	7, 321	311	889	77, 159	2, 341	88. 5	82. 1
31-40.....	10	7, 653	356	899	84, 812	2, 697	97. 3	94. 6
41 and over.....	3	2, 369	153	902	87, 181	2, 850	100. 0	100. 0
Total.....	902	187, 180	2, 850					

¹ Totals based on unrounded data.

As shown in the table, 41.2 percent of the total employee-hour exposure in logging accounted for only 29.6 percent of the injuries, leaving 70.4 percent of all injuries to be accounted for by the remaining 58.8 percent of exposure. In sawmills, nearly half of the total exposure hours included less than one-third of all injuries. In fact, 51 of the 857 sawmills, with only about one-third of the total exposure, had nearly half of all injuries.

In planing mills, too, much the same distribution occurred. Of a total of 902 establishments, 754, with nearly 48 percent of the total exposure, had under 28 percent of all injuries. Thus, about 72 percent of all injuries occurred in 148 planing mills with 52 percent of the total employee-hours worked.

Causes and Prevention of Accidents

A considerable number of reporting establishments complied with the request for brief descriptions of their serious accidents. A large number of these descriptions were sufficiently detailed to permit an analysis of the unsafe conditions or unsafe acts which made these accidents possible. As is apparent from the suggestions which follow the descriptions of the accidents below, the safety rules violated were often of a very commonsense, nontechnical character.

It is also necessary to call attention to the fact that operations in logging and sawmill establishments are of a rougher and heavier type than those in planing mills. Further, and partly as a consequence of this fact, the types of workers involved differ considerably.

DESCRIPTION OF ACCIDENTS AND METHODS OF PREVENTION ³

Logging

1. A log cutter, riding to work on a log truck, accidentally stepped on a safety latch, releasing a trailer. The trailer rolled back and pinned his leg between the truck and frame. The leg had to be amputated.

Men should not be permitted to ride on log trucks, except in the cab.

2. A buckner, walking down a log lying at a 25-degree angle, slipped, fell, and was killed when he struck his head against a sharp edge of the stump.

Buckners should wear proper shoes.

3. A worker ran under a falling tree, suffering injuries to his left arm and right leg. The arm had to be amputated at the shoulder.

Fallers should give timely warning to permit others to get out of way of falling tree. As a rule, men should not run until the tree starts to fall, so that they can tell in which direction to run safely.

³ In the analysis of these accidents, selected as typical of those reported, the authors had the assistance of S. M. Lauderdale, Safety Director, Civilian Conservation Corps. The analysis was made from cards to which the descriptions of accidents had been transcribed so as not to reveal the identity of reporting establishments.

4. Faller, while sawing down tree, was struck on the head by a falling limb and killed.

Trees, before being felled, should be examined for loose and dead limbs ("widow-makers"). If possible, these should be removed before felling. Where this is not possible, felling operations should be done cautiously, to prevent jarring of trees, with fallers taking care not to work directly below dangerous limbs.

5. A worker jumped between logging cars to apply the hand brake. He fell, and the log car ran over him.

Men should not be permitted to step between moving cars.

6. A truck driver was directing the loading operator in the selection of logs and their placement on the truck. The last log sent up did not have a good notch for holding. To counteract any possible danger of the log's rolling off, the truck driver put a wrapper around the load. While he was tightening the wrapper, the log rolled onto him, causing injuries which later resulted in death.

The truck driver should not have attempted to adjust the wrapper around a load which was not properly placed. He should have directed the loading operator either to lift the log off the truck, or to readjust the other logs so as to provide a proper place for the last log, preventing its rolling off.

7. Two fallers were chopping down a tree in a cedar swamp, trying to fall it against the wind. One man was pushing against the tree with his hands, and the other was pulling on it with his axe, from the opposite side. The axe, which was hooked above the hands of the man pushing, slipped and severed the tendons of several fingers.

There are three safety violations in this accident; (1) Men should not stand in front of trees, pulling them; (2) for pulling, ropes should be used, not hand tools, such as axes; (3) men should not push trees, because they may split and "kick up."

8. A tractor driver pulled his load of logs against a dead tree, which fell and killed him.

The right-of-way should be cleared of all trees, particularly dead snags or dead trees, for a safe distance on both sides of the roadway.

9. A toppler fell when pulled down by the top of a tree.

Toppers should use safety belts and ropes.

10. A rigger was struck in the back of the neck by a haul-back line.

There should have been a guard between the rigger and the line.

11. A worker, rolling a log with an iron bar, slipped, fell, and was struck on the head by the bar.

The worker should have used a canthook to roll the log, not a bar. The canthook would not have struck the worker after he fell.

Sawmills

1. A saw struck a knot in a log, causing the knot to strike the log tripper in the face, destroying one eye.

The worker should have been protected against flying chips and knots by a proper guard (usually a wire screen).

2. A worker adjusted a gage on a circular saw while the saw was running. His wrench slipped, causing this hand to come in contact with the saw, which severed two fingers.

Workers should not be permitted to adjust or repair machinery in motion.

3. A cant turner was attempting to roll a log down the log deck. His canthook tore loose while he was pulling on it, causing him to fall against a deck skid, fracturing a leg.

The turner should have lifted the log with the canthook instead of pulling it.

4. An inexperienced worker attempted to stop a slowly rolling log with his canthook, and severely strained his abdominal muscles.

Men should be properly instructed and supervised.

5. A worker was pulling a heavy board over to the roller conveyor, to trim off the ends. Grasping the board with both hands, he permitted his right wrist to come in contact with the saw, which severed the right hand.

Both saw and rollers should have been properly guarded.

6. A boy lost two fingers by using his hand, instead of a stick provided for this purpose, to clear a sawdust chute.

"This hazard has been removed by closing up opening so a hand cannot be inserted now."

7. The truss rod and bolt, coupling two full cars, broke, striking worker and causing his death.

Equipment should be inspected at frequent intervals and defective parts be replaced or repaired.

8. A worker, while assisting in moving a dry kiln truck of lumber, was fatally injured when the truck tipped, causing the lumber to fall on him.

Loads should be piled properly, according to the length of lumber to be hauled, so as to prevent tipping. The lumber should have been "boomed" (fastened to truck) before being moved.

9. A worker, repairing live rollers behind a resaw, moved a cable slightly. The cable caught in the gears, drawing in the worker's hand and causing its amputation.

Men should not be permitted to repair equipment in motion.

10. A worker kicked the spreader of a bolter saw. His foot slipped into the saw.

The saw should have been stopped before any adjustment was made. Workers should not be permitted to kick the spreader or any other mechanism near the saw.

11. A worker's jumper sleeve caught on a shaft, winding the worker around the shaft. Death resulted.

The shaft should have been guarded and the worker should not have been permitted to work in loose clothing.

Planing Mills

1. A piece of wood broke while being fed into the machine, causing the feeder's hand to come in touch with the saw, which severed the thumb and a finger.

The saw should have been properly guarded, and the worker should have been instructed in the proper method of feeding the machine.

2. A feeder's glove caught between rollers as the feeder tried to remove a sliver; painful bruises and abrasions resulted.

The feeder should have used a proper tool instead of his hand. If it was necessary for him to use his hand, he should have stopped the machine.

3. A shaper worker caught his sleeve in a revolving knife, gashing the left hand and arm.

The revolving knife should have been guarded and the worker should not have been permitted to work in loose clothing.

4. An end-trimmerman was struck in the abdomen by a board kicked back by a saw. He suffered severe internal injuries and was disabled for 76 days.

The machine should have been properly guarded to prevent kickbacks. The saw should be kept sharp, and the operator be instructed and required to stand at the side of the board and not in back of it.

5. A laborer, carrying lumber, fell through a trap door opening on the second floor onto a pile of lumber below, suffering severe concussions.

All openings should be guarded with hand or other types of railings and should be properly flagged.

6. A sash and door man was changing his set-up and adjusting the machine. The machine had been turned off, but the saw was still revolving. Accidentally, he passed his hand over the blade, which cut off the top of his right hand.

The worker should have waited for the saw to come to a dead stop before adjusting the machine.

7. A planer foreman used his hands to remove a chip from the bottom feed rolls of a planing machine. His right hand was entangled in the rollers and mangled so severely that amputation was necessary.

The foreman should have used a tool instead of his hands. If it was necessary to use his hands, he should have stopped the machine.

8. A janitor jumped onto a moving elevator, fell, and was killed by being caught between the elevator platform and the ceiling of the shaft opening.

Workers should never be permitted to jump onto moving elevators. More important, the elevator should have been so guarded (i. e., enclosed) that jumping onto it would have been impossible.

9. A worker was pushed off a platform by a load of lumber on the conveyor chain when the chain was started. He suffered a permanent impairment to one arm.

The lumber should have been loaded properly on the conveyor so as not to extend over onto the platform. Further, the load should not have been moved until the "clear" signal had been given.

10. A band-saw operator suffered severe injuries when struck by a piece of a breaking saw.

The saw should have been properly guarded.



SICKNESS AMONG MALE INDUSTRIAL EMPLOYEES, 1939

REPORTS are made periodically to the United States Public Health Service on sickness and nonindustrial injuries causing disability lasting more than 1 week, among approximately 170,000 male members of industrial sick-benefit organizations.¹ The reporting organizations include mutual sick-benefit associations, group-insurance systems, and company relief departments. The reporting companies are located in nine Eastern and Middle Western States, and in Canada. The frequency of cases in 1939 was slightly higher than in 1938, the incidence rate being 88.8 per 1,000 men, as compared with 82.2 in the preceding year. This increase was principally due to a larger number of cases of influenza and grippe in 1939.

The following table shows the frequency of disability from various diseases among a group of industrial workers in 1939, compared with 1938, and for the 5-year period, 1934-38.

¹ U. S. Public Health Service, Public Health Reports, Washington, April 12, 1940.

*Frequency of Disability in a Group of Industrial Workers in Specified Periods*¹

[Data cover only disability lasting 8 calendar days or longer]

Diseases causing disability	Annual number of cases per 1,000 males				
	Fourth quarter		Full year		
	1939	1938	1939	1938	1934-38
Sickness and nonindustrial injuries ²	77.2	81.4	88.8	82.2	87.9
Nonindustrial injuries.....	10.2	10.6	10.2	11.0	11.5
Sickness ²	67.0	70.8	78.6	71.2	76.4
Respiratory diseases.....	27.5	28.2	34.1	26.6	31.3
Influenza and grippe.....	10.3	10.8	16.5	9.9	14.1
Bronchitis, acute and chronic.....	4.6	5.1	4.2	4.3	4.2
Diseases of the pharynx and tonsils.....	3.7	3.8	4.4	4.5	4.4
Pneumonia, all forms.....	3.0	2.9	3.0	2.3	2.8
Tuberculosis of the respiratory system.....	.5	.8	.7	.9	.9
Other respiratory diseases.....	5.4	4.8	5.3	4.7	4.9
Nonrespiratory diseases.....	37.9	40.7	42.5	42.5	42.7
Digestive diseases.....	10.9	13.4	13.3	13.4	13.4
Diseases of the stomach, except cancer.....	3.2	4.2	3.5	4.1	3.8
Diarrhea and enteritis.....	1.0	1.1	1.2	1.0	1.2
Appendicitis.....	3.7	3.5	4.3	4.0	4.1
Hernia.....	1.0	1.4	1.5	1.6	1.6
Other digestive diseases.....	2.0	3.2	2.8	2.7	2.7
Nondigestive diseases.....	27.0	27.3	29.2	29.1	29.3
Diseases of the heart and arteries, and nephritis.....	4.4	4.1	4.4	4.1	3.8
Other genitourinary diseases.....	2.0	2.1	2.3	2.3	2.4
Neuralgia, neuritis, sciatica.....	2.3	2.2	2.2	2.1	2.1
Neurasthenia and the like.....	1.0	1.0	1.0	.9	1.0
Other diseases of the nervous system.....	1.0	1.1	1.0	1.2	1.2
Rheumatism, acute and chronic.....	2.7	3.3	3.4	3.7	4.0
Diseases of the organs of locomotion, except diseases of the joints.....	2.6	3.0	2.6	2.8	2.9
Diseases of the skin.....	2.5	2.5	2.7	3.0	2.9
Infectious and parasitic diseases.....	1.5	1.4	2.1	2.1	2.5
All other diseases.....	7.0	6.6	7.5	6.9	6.5
Ill-defined and unknown causes.....	1.6	1.9	2.0	2.1	2.4
Average number of males covered in the record.....	192,211	167,894	177,333	167,915	161,193
Number of organizations.....	26	26	26	26	26

¹ In 1939 and 1938 the same organizations are included; the rates for the years 1934-38, however, are based on records from the same 26 organizations and some additional reporting organizations.

² Exclusive of disability from the venereal diseases and a few numerically unimportant causes of disability

There were 34.1 cases of respiratory diseases per thousand male industrial workers in 1939, and 26.6 in 1938, representing a 28-percent increase in 1939 over the preceding year. Pneumonia cases increased from 2.3 cases per 1,000 in 1938 to 3.0 cases in 1939, or 30 percent, but the number of cases of respiratory tuberculosis was lower in 1939 than in 1938. Although there was a large increase in the pneumonia rate in 1939 as compared with 1938, when the rate is compared with the corresponding frequency—2.8—for 1934-38, the increase becomes very much reduced. Over the 10-year period 1930 to 1939, the 1939 rate (3.0) was the highest recorded for the decade, while the lowest rate (1.8) occurred in 1933. "The 10 annual rates vary about a mean of 2.4, beginning with the relatively high rate of 2.6 in 1930, decreasing to 1.8 in 1933, gradually rising to 2.9 in 1937, dropping precipitously to 2.3 in 1938, and rising again to the maximum of 3.0."

A comparison of the 1939 rates with the combined rates for 1934-38 shows only a slight difference for all sickness and nonindustrial injuries,

but for certain diseases—influenza and grippe, and diseases of the heart and arteries, including nephritis—the rates were unfavorable.



HEALTH OF INDUSTRIAL POLICYHOLDERS, 1939

THE mortality rate among an important cross section of the population—the more than 17 million industrial policyholders of the Metropolitan Life Insurance Co.—reached a new low point in 1939, with a rate of 760.9 per 100,000 insured lives, as compared with the previous low of 766.0 in 1938.¹ From the data available at the time the report was issued it appeared that the rate for the general population was somewhat higher than in the preceding year, as there were 429,419 deaths in 88 large cities as compared with 424,348 in 1938—an increase of 1.2 percent in actual deaths. Also, reports received by the company from State health and registration offices in 41 States and the District of Columbia showed for the first 9 months in 1939 an increase of 1.5 percent in actual deaths as compared with the same period in 1938. Although these figures could not be translated into death rates, as no official estimate of population had been issued by the Government, it was considered probable that the percent of increase in deaths throughout the country was greater in 1939 than the percent of rise in population. For the country as a whole, however, there was continued improvement in infant and maternal mortality as well as in mortality rates from tuberculosis and pneumonia, so that it was assured that new low rates for these causes of death were reached in 1939.

Because the year 1939 marked the end of a decade, additional interest attaches to the present report of the health experience of these millions of insured wage earners. The advances made in the application of discoveries in medicine and sanitary science toward the conservation of human life have been reflected in improvements in the life expectancy of the wage earners and the decline in their death rate, not only from all causes combined, but from many individual diseases. These improvements, it is pointed out, have occurred in spite of continued unfavorable business conditions and widespread unemployment, which are not conducive to lowered mortality rates and increased longevity.

Ten-Year Trends

During the 10-year period, the average length of life (or expectation of life at birth) of the industrial policyholders increased 6.65 years. It is now at its all-time maximum—62.43 years—and is at approximately the same level as that of the general population. At the close of the preceding decade, the life expectancy of industrial wage earners was 2.21 years less than that of the population at large.

¹ Metropolitan Life Insurance Co. Statistical Bulletin, January 1940: New Low Record for Mortality in 1939.

There was a reduction of 18.6 percent in deaths from all causes combined between 1929 and 1939, while the percentage decline for diseases in the preventable or controllable class were as follows: Typhoid fever, 71 percent; measles, 80; scarlet fever, 74; whooping cough, 72; diphtheria, 85; influenza, 77; pneumonia, 52; tuberculosis, 48; alcoholism, 65; infantile diarrhea, 77; appendicitis, 27; chronic nephritis, 26; and diseases arising from pregnancy and childbirth, 60 percent. Great improvement has also taken place in the field of public safety. The death rate for accidents (all forms combined) had fallen 29 percent, and for automobile fatalities 19 percent, in spite of greatly increased traffic. Even greater improvement was shown in the rates for other causes of accidental death, with the exception of falls, which had a slightly higher rate in 1939 than in 1929. It is estimated that the progressive reduction in mortality from various causes over the 10 years has resulted in a cumulative saving of 305,000 lives. Among the important causes of the relatively greater improvement among these wage earners and their dependents are the extensive nursing service provided by the company and the continued campaign of health education. The decline in the death rate during the decade has taken place in every age period of life, with the greatest gain in the earliest age group but with almost equal gains in all groups up to age 35.

Rates in 1939 Compared with 1938

DISEASES WITH LOWERED RATES

The death rate in 1939 for the four diseases—measles, scarlet fever, whooping cough, and diphtheria—combined was 4.2 per 100,000. This was a reduction of 34 percent from the preceding year, and of 79 percent in the decade. The rate for scarlet fever dropped below 1 per 100,000, and diphtheria, which was of greatest importance in the group 10 years ago, has now fallen to second place.

The tuberculosis death rate was 44.9 per 100,000, or 4.9 percent below the rate for 1938. There has been a steady decline in the death rate from this disease since 1929.

A new minimum rate of 42.9 per 100,000 was set for pneumonia. This was 15.2 percent below the 1938 rate and is said to be the most striking gain for the year. The death rate has dropped 52 percent in the 10-year period. The extensive development of serum treatment in 1937 and 1938 was accompanied by rapid declines in pneumonia mortality and the question arose as to whether these were permanent gains or were due to the absence of any widespread influenza epidemic. However, deaths from pneumonia continued to decline in 1939 in spite of a rise in mortality from influenza, so that it appears that at last

methods of treatment have been found that are successful in the treatment of this disease.

New low death rates were also established for infantile diarrhea, which has declined to 3.7 per 100,000, or less than one-fourth of the rate 10 years ago, and for diseases of pregnancy and childbirth. The puerperal death rate in 1939 was 5.4 per 100,000, a reduction of 12.9 percent from the 1938 rate and of 60 percent in 10 years. Although provisional figures from 42 States and the District of Columbia show a loss of 1.3 percent in the birth rate for the first 9 months of 1939, the decline in maternal deaths in the insured group, it is said, is obviously much greater than the fall in births. It is estimated that the maternal death rate among insured women has been reduced to about 3 per 1,000 live births.

The accident death rate of 46.3 per 100,000 was 4.3 percent below the rate for 1938, although automobile fatalities did not show the large decrease recorded for the previous year. The alcoholism death rate was the lowest recorded since 1921, and the suicide rate was the lowest registered since 1929, while the homicide rate of 4.4 per 100,000 was the same as the minimum recorded for 1938.

DISEASES WITH HIGHER RATES

In contrast with new low death rates for 11 diseases in 1939, three diseases—cancer, diabetes, and diseases of the coronary arteries—had new high mortality rates. In addition influenza, cerebral hemorrhage, heart disease, and railroad accidents had higher rates than in 1938, but with the exception of heart disease the rates for these diseases were well below the average for recent years.

The mortality from cancer reached a new high of 101 per 100,000. The crude death rate has increased 30 percent in 10 years, but although cancer is now second in numerical importance among all the causes of death, the increase over a long period of years is not so great as the crude death rate appears to show, owing to the shift in the age distribution of the population, and the improvement in the diagnosis of internal cancer. Diseases of the coronary arteries also showed a sharp rise in 1939, the rate of 40.2 per 100,000 being almost nine times the rate recorded 10 years ago. However, the real rise in the death rate is not so great as the figures indicate, owing to improved diagnosis of coronary conditions. The death rate from diabetes of 27.5 per 100,000 was approximately 10 percent higher than in 1938. Although there have been continuing advances in the treatment of the disease, the number of known diabetics is increasing faster than the population. This is due both to earlier diagnosis and also to the rise in the proportion of older persons, among whom the disease is most prevalent.

Progress in Health and Longevity

Taken as a whole, the report states there has been remarkable progress, in the decade just closed, in the health and longevity of the millions of insured wage earners and their families who are covered by the statistics presented.

Perhaps the most eloquent testimony to all these accomplishments is the increase of 6½ years in the average duration of life of these people. For that is the end result of the advances in medical and sanitary science which have led to the control of the most devastating diseases of childhood, the rapid decline in tuberculosis, and, late in the decade, to the extraordinary advances which are leading to the conquest of pneumonia. These, in future years, will probably stand out in boldest relief among all the developments of a decade that will go down as a red-letter era in the history of public health.

Industrial Disputes

TREND OF STRIKES

PRELIMINARY estimates indicate an increase in July 1940 of about 23 percent in number of strikes as compared with June. The number of new strikes in July was about 200. The number of workers involved in July increased 83 percent to about 55,000 as compared with June and the number of man-days idle increased 28 percent to an approximate 500,000. The largest dispute in July was the 2-day stoppage on July 11 and 12 of about 15,000 workers in the New York cloak and suit industry in connection with the renewal of their union agreement.

Strike activity in July 1940 was at a much lower level than in July a year ago when the widespread stoppages of WPA workers took place. In July 1940 there were only 80 percent as many strikes, 31 percent as many workers involved, and 43 percent as many man-days of idleness.

*Trend of Strikes, 1933 to July 1940*¹

Year and month	Number of strikes					Workers involved in strikes		Man-days idle during month or year
	Continued from preceding month	Beginning in month or year	In progress during month	Ended in month	In effect at end of month	Beginning in month or year	In progress during month	
1933.....		1,695				1,168,272		16,872,128
1934.....		1,856				1,466,695		19,591,949
1935.....		2,014				1,117,213		15,456,337
1936.....		2,172				788,648		13,901,956
1937.....		4,740				1,860,621		28,424,857
1938.....		2,772				688,376		9,148,273
1939.....		2,613				1,170,962		17,812,219
<i>1939</i>								
January.....	120	203	323	184	139	51,159	72,427	513,460
February.....	139	204	343	204	139	68,252	88,267	553,138
March.....	139	210	349	199	150	43,337	64,660	618,147
April.....	150	281	431	255	176	396,166	425,748	4,902,238
May.....	176	258	434	272	162	95,239	457,407	3,547,868
June.....	162	245	407	260	138	62,534	127,474	958,127
July.....	138	251	389	216	173	175,542	211,548	1,168,382
August.....	173	275	448	272	176	79,670	118,772	1,101,419
September.....	176	197	373	222	151	36,846	103,538	892,485
October.....	151	205	356	217	139	106,628	139,608	1,508,120
November.....	139	178	317	201	116	43,239	130,341	1,664,574
December.....	116	106	222	128	94	12,350	37,122	384,261
<i>1940</i>								
January.....	94	116	210	118	92	25,156	39,503	239,170
February.....	92	145	237	134	103	28,215	36,581	282,446
March.....	103	145	248	157	91	21,487	41,707	372,538
April.....	91	192	283	178	105	36,458	49,510	425,920
May.....	105	197	302	215	87	49,930	73,842	650,602
June ¹	87	163	250	150	100	30,000	45,000	390,000
July ¹	100	200	300	180	120	55,000	70,000	500,000

¹ Strikes involving fewer than 6 workers or lasting less than 1 day are not included in this table nor in the following tables. Notices or leads regarding strikes are obtained by the Bureau from more than 650 daily papers, labor papers, and trade journals, as well as from all Government labor boards. Letters are written to representatives of parties in the disputes asking for detailed and authentic information. Since answers to some of these letters have not yet been received, the figures given for the late months are not final. This is particularly true with regard to figures for the last 2 months, and these should be considered as preliminary estimates.

The figures given for June and July in the accompanying table are preliminary estimates based on newspaper reports and other information available as this goes to press. An analysis of strikes in each of these months, based on detailed and verified information, will appear in subsequent issues of the Monthly Labor Review.



STRIKES IN MAY 1940 ¹

THE number of strikes beginning in May 1940 was only slightly greater than in April but exceeded the number in any preceding month of 1940. The number of workers involved and man-days of idleness also exceeded those in the earlier months of the year. Detailed information has been obtained on 197 strikes which began in May, involving nearly 50,000 workers. These strikes, with 105 which continued into May from preceding months, resulted in 650,000 man-days of idleness during the month.

The two largest strikes of the month were the strike of dairy workers in Chicago and the strike at the Federal Shipbuilding & Dry Dock Co. in Kearny, N. J. Each of these involved between 6,000 and 7,000 workers, but the latter strike was of short duration, beginning May 31 and ending June 2. The dairy workers in Chicago, however, were idle for a longer time. The strike began on May 1, was ended temporarily by a truce agreement May 3 and, when settlement negotiations failed, the strike was resumed on May 19 and lasted until May 26.

The industry groups having the greatest number of new strikes in May were: Building and construction (31), trade (25), food (16), and domestic and personal service (15). Principally because of the shipbuilding and dairy workers' strikes referred to above, the largest numbers of workers involved were in trade and in the industries manufacturing transportation equipment. The transportation and communication industries had more man-days of idleness than any other group. This was due chiefly to the taxicab drivers' strike in New York City which began in April and continued until May 28. Other groups with comparatively large numbers of man-days idle were: Trade (64,656), machinery manufacturing (58,257), and tobacco manufactures (44,000).

About 44 percent of the strikes beginning in May were in the following four States: New York (30), Pennsylvania (27), California (17), and Ohio (13). There were more workers involved in New Jersey (9,183) than in any other State, as a result of the shipyard strike in Kearny, N. J. The large number of workers idle in Pennsylvania (9,081) is accounted for by a number of disputes, the largest of which involved about 2,000 workers at a saw factory in Philadel-

¹ Detailed information on a few strikes has not yet been received. (See footnote to preceding table.) Data on missing strikes will be included in the annual report.

phia from May 16 to 22. New York had more man-days of idleness (188,479) than any other State. As in Pennsylvania, this was due to a number of strikes, the largest of which was the strike of New York taxicab drivers mentioned previously. Other States showing large numbers of man-days of idleness were: Illinois (74,977), Ohio (53,092), and Virginia (51,898). (See table 2.)

TABLE 1.—*Strikes in May 1940, by Industry*

Industry	Beginning in May		In progress during May		Man-days idle during May
	Number	Workers involved	Number	Workers involved	
All industries.....	197	49,930	302	73,842	650,602
Iron and steel and their products, not including machinery.....	13	5,110	16	5,368	33,732
Plumbers' supplies and fixtures.....			1	97	388
Steam and hot-water heating apparatus and steam fittings.....	1	135	1	135	945
Stoves.....	3	888	3	888	6,755
Structural and ornamental metalwork.....	2	223	2	223	1,594
Tin cans and other tinware.....	2	839	3	919	7,671
Tools (not including edge tools, machine tools, files and saws).....	1	15	2	116	565
Other.....	4	3,010	4	3,010	15,814
Machinery, not including transportation equipment.....	13	5,766	17	6,548	58,257
Electrical machinery, apparatus, and supplies.....	2	1,167	3	1,189	1,349
Foundry and machine-shop products.....	7	3,995	8	4,035	42,932
Machine tools (power driven).....	1	82	1	82	492
Radios and phonographs.....	1	320	1	320	3,200
Other.....	2	202	4	922	10,284
Transportation equipment.....	6	9,090	10	11,193	34,393
Automobiles, bodies and parts.....	2	623	4	1,375	10,914
Cars, electric- and steam-railroad.....			1	1,034	7,328
Shipbuilding.....	4	8,457	5	8,784	16,241
Nonferrous metals and their products.....	4	257	7	603	9,966
Aluminum manufactures.....	1	9	1	9	99
Brass, bronze, and copper products.....	1	45	1	45	135
Smelting and refining—copper, lead, and zinc.....			1	144	3,168
Stamped and enameled ware.....	2	203	4	405	6,564
Lumber and allied products.....	10	1,472	25	4,932	38,620
Furniture.....	4	1,015	15	3,102	16,688
Millwork and planing.....	2	213	4	853	7,925
Sawmills and logging camps.....	2	167	2	167	327
Other.....	2	77	4	810	13,680
Stone, clay, and glass products.....	6	407	13	1,045	14,213
Brick, tile, and terra cotta.....	4	209	6	440	4,240
Cement.....			1	52	520
Glass.....			1	229	5,038
Marble, granite, slate, and other products.....			1	32	448
Pottery.....			1	114	2,508
Other.....	2	108	3	178	1,459
Textiles and their products.....	13	1,593	20	2,544	27,349
Fabrics:					
Cotton goods.....	1	322	1	322	3,220
Dyeing and finishing textiles.....	1	14	1	14	126
Silk and rayon goods.....			1	20	80
Other.....	3	261	3	261	871
Wearing apparel:					
Clothing, men's.....	1	95	2	261	3,747
Clothing, women's.....	4	338	4	338	1,406
Corsets and allied garments.....			1	16	224
Hats, caps, and millinery.....	2	507	5	876	9,827
Hosiery.....	1	56	2	436	7,848
Leather and its manufactures.....	6	392	7	444	3,778
Boots and shoes.....	1	10	1	10	30
Leather.....	1	50	1	50	50
Other leather goods.....	4	332	5	384	3,698

TABLE 1.—*Strikes in May 1940, by Industry—Continued*

Industry	Beginning in May		In progress during May		Man-days idle during May
	Number	Workers involved	Number	Workers involved	
Food and kindred products	16	997	22	1,409	14,138
Baking.....	8	483	8	483	4,101
Beverages.....	2	38	3	56	604
Canning and preserving.....	2	217	4	514	5,771
Confectionery.....	1	93	1	93	1,767
Slaughtering and meat packing.....	1	144	3	196	1,594
Other.....	2	22	3	67	301
Tobacco manufactures			1	2,000	44,000
Cigars.....			1	2,000	44,000
Paper and printing	7	770	12	995	7,255
Boxes, paper.....	1	70	3	109	475
Paper and pulp.....			1	81	2,106
Printing and publishing:					
Book and job.....	1	15	1	15	75
Newspapers and periodicals.....	2	327	3	337	766
Other.....	3	358	4	453	3,833
Chemicals and allied products	2	496	3	1,096	13,225
Druggists' preparations.....	1	31	1	31	310
Other.....	1	465	2	1,065	12,915
Rubber products	1	38	2	1,275	27,480
Rubber tires and inner tubes.....			1	1,237	27,214
Other rubber goods.....	1	38	1	38	266
Miscellaneous manufacturing	7	603	12	1,213	12,149
Furriers and fur factories.....	3	211	4	437	2,463
Other.....	4	392	8	776	9,686
Extraction of minerals	9	4,279	11	4,783	19,186
Coal mining, anthracite.....	3	2,654	4	2,684	11,180
Coal mining, bituminous.....	4	1,532	5	2,006	7,003
Metalliferous mining.....	2	93	2	93	1,003
Transportation and communication	6	1,071	12	7,516	151,321
Water transportation.....	2	81	4	893	4,197
Motorbus transportation.....	1	665	1	665	8,645
Taxicabs and miscellaneous.....	2	303	3	5,803	136,353
Motortruck transportation.....			2	62	1,372
Steam railroad.....			1	71	497
Telephone and telegraph.....	1	22	1	22	257
Trade	25	7,933	40	8,448	64,656
Wholesale.....	8	217	14	450	6,137
Retail.....	17	7,716	26	7,998	58,519
Domestic and personal service	15	1,159	22	1,327	8,261
Hotels, restaurants, and boarding houses.....	6	338	12	432	4,097
Personal service, barbers, beauty parlors.....	2	662	2	662	3,286
Laundries.....	3	36	3	36	167
Dyeing, cleaning, and pressing.....	2	38	3	112	616
Elevator and maintenance workers (when not attached to specific industry).....	1	75	1	75	75
Other.....	1	10	1	10	20
Professional service	2	131	3	163	2,131
Recreation and amusement.....	1	40	2	72	1,312
Professional.....	1	91	1	91	819
Building and construction	31	7,011	38	8,468	36,606
Buildings, exclusive of PWA.....	25	3,331	29	4,696	27,805
All other construction (bridges, docks, etc., and PWA buildings).....	6	3,680	9	3,772	8,801
Agriculture and fishing	2	435	4	1,304	24,173
Agriculture.....	1	35	2	56	525
Fishing.....	1	400	2	1,248	23,648
WPA, relief, and resettlement projects	1	680	1	680	2,720
Other nonmanufacturing industries	2	250	4	468	2,993

Of the four strikes which extended across State lines (see table 2) the largest was the strike of Pacific Greyhound Lines employees, in several Western States, which began on May 16 and was still in effect at the end of the month.

TABLE 2.—*Strikes in May 1940, by States*

State	Beginning in May		In progress during May		Man-days idle during May
	Num-ber	Workers involved	Num-ber	Workers involved	
All States.....	197	49,930	302	73,842	650,602
Alabama.....	3	237	3	237	1,453
Arkansas.....			2	171	3,762
California.....	17	2,065	26	2,469	19,727
Colorado.....	1	13	1	13	130
Connecticut.....	2	573	2	573	3,942
Delaware.....	1	152	1	152	608
District of Columbia.....	2	511	4	591	2,885
Florida.....	4	1,436	5	1,452	5,708
Georgia.....			2	191	4,330
Idaho.....	1	35	1	35	115
Illinois.....	11	7,867	15	9,691	74,977
Indiana.....	5	703	10	2,412	14,662
Iowa.....	1	24	2	32	224
Kansas.....	1	23	2	75	543
Kentucky.....	3	1,201	3	1,201	2,402
Louisiana.....	2	97	4	227	2,439
Maryland.....	3	37	5	217	4,071
Massachusetts.....	5	316	9	1,341	26,784
Michigan.....	5	481	5	481	1,759
Minnesota.....	5	465	6	545	4,569
Missouri.....	6	413	9	535	3,420
Nebraska.....	1	7	1	7	14
New Jersey.....	12	9,183	18	9,870	26,233
New York.....	30	3,160	58	11,346	188,479
North Carolina.....	2	237	4	647	9,616
North Dakota.....	1	14	1	14	28
Ohio.....	13	2,630	21	4,658	53,092
Oklahoma.....	1	9	1	9	99
Oregon.....	3	558	3	558	1,780
Pennsylvania.....	27	9,081	36	10,006	43,881
Rhode Island.....	1	500	1	500	1,500
South Dakota.....	1	9	1	9	27
Tennessee.....	3	2,600	3	2,600	5,603
Texas.....	1	279	3	635	7,753
Utah.....	2	120	2	120	1,180
Virginia.....	1	7	3	2,607	51,898
Washington.....	7	3,207	10	3,405	38,175
West Virginia.....	2	83	3	312	5,600
Wisconsin.....	7	683	8	701	4,051
Interstate.....	4	914	8	3,197	33,083

The 197 strikes beginning in May involved an average of 253 workers each. Sixty-two percent of the strikes involved fewer than 100 workers each, 34 percent involved 100 to 1,000 workers each, and in each of 8 strikes (4 percent) more than 1,000 workers were involved. The largest strikes in this latter group were those already referred to—the shipyard workers in New Jersey and the dairy workers in Chicago.

TABLE 3.—*Strikes Beginning in May 1940, Classified by Number of Workers Involved*

Industry group	Total	Number of strikes in which the number of workers involved was—					
		6 and under 20	20 and under 100	100 and under 500	500 and under 1,000	1,000 and under 5,000	5,000 and under 10,000
All industries.....	197	41	81	57	10	6	2
<i>Manufacturing</i>							
Iron and steel and their products, not including machinery.....	13	1	3	6	2	1	
Machinery, not including transportation equipment.....	13	1	3	7		2	
Transportation equipment.....	6		1	3		1	1
Nonferrous metals and their products.....	4	2	1	1			
Lumber and allied products.....	10		5	5			
Stone, clay, and glass products.....	6		5	1			
Textiles and their products.....	13	2	7	4			
Leather and its manufactures.....	6	2	3	1			
Food and kindred products.....	16	5	8	3			
Paper and printing.....	7	3	1	3			
Chemicals and allied products.....	2		1	1			
Rubber products.....	1		1				
Miscellaneous manufacturing.....	7	2	2	3			
<i>Nonmanufacturing</i>							
Extraction of minerals.....	9		3	3	2	1	
Transportation and communication.....	6	1	3	1	1		
Trade.....	25	8	10	6			1
Domestic and personal service.....	15	5	9		1		
Professional service.....	2		2				
Building and construction.....	31	9	11	7	3	1	
Agriculture and fishing.....	2		1	1			
WPA, relief, and resettlement projects.....	1				1		
Other nonmanufacturing industries.....	2		1	1			

Union-organization matters—recognition, closed shop, discrimination, etc.—were the principal issues in 46 percent of the strikes beginning in May. In many of these, questions of wages and hours were involved also. About 29 percent of the workers involved were in these union-organization strikes. Wages and hours were the major issues in 36 percent of the strikes, which included 50 percent of the total workers involved. Demands for wage increases were the most common cause of strikes during the month. About 18 percent of the strikes, including 21 percent of the workers involved, were due to miscellaneous causes, such as union rivalry, jurisdiction and various grievances over distribution of work, discharges for inefficiency, demands for guaranteed working time, and various other working conditions.

TABLE 4.—Major Issues Involved in Strikes Beginning in May 1940

Major issue	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
All issues.....	197	100.0	49,930	100.0
Wages and hours.....	71	36.0	24,945	50.0
Wage increase.....	58	29.5	18,483	33.0
Wage decrease.....	3	1.5	7,081	14.2
Wage increase, hour decrease.....	5	2.6	246	.5
Hour increase.....	2	1.0	29	.1
Hour decrease.....	3	1.5	1,106	2.2
Union organization.....	91	46.2	14,344	28.7
Recognition.....	12	6.1	924	1.9
Recognition and wages.....	21	10.7	2,689	5.4
Recognition and hours.....	1	.5	28	.1
Recognition, wages, and hours.....	16	8.1	1,588	3.2
Closed or union shop.....	29	14.7	8,278	16.5
Discrimination.....	10	5.1	417	.8
Strengthening bargaining position.....	2	1.0	420	.8
Miscellaneous.....	35	17.8	10,641	21.3
Rival unions or factions.....	7	3.6	1,249	2.5
Jurisdiction.....	6	3.0	749	1.5
Other.....	22	11.2	8,643	17.3

The average duration of the 215 strikes ending in May was 18 calendar days. About 39 percent of these strikes ended less than a week after they began, 43 percent lasted from a week to a month, 16 percent from 1 month to 3 months, and 4 strikes (2 percent) had been in progress 3 months or more. The largest of these was a strike in the freight-car manufacturing industry, in Mount Vernon, Ill., which began on February 5 and lasted until May 9.

TABLE 5.—Duration of Strikes Ending in May 1940

Industry group	Total	Number of strikes with duration of—					
		Less than 1 week	1 week and less than 1½ month	1½ and less than 1 month	1 and less than 2 months	2 and less than 3 months	3 months or more
All industries.....	215	84	57	35	26	9	4
<i>Manufacturing</i>							
Iron and steel and their products, not including machinery.....	12	3	4	3		2	
Machinery, not including transportation equipment.....	9	2	3	2	1	1	
Transportation equipment.....	7	2	3	1			1
Nonferrous metals and their products.....	2	1			1		
Lumber and allied products.....	20	6	4	3	5	2	
Stone, clay, and glass products.....	11	1	3	5	2		
Textiles and their products.....	12	4	3	3	1	1	
Leather and its manufactures.....	4	2	1	1			
Food and kindred products.....	16	6	5	3	2		
Paper and printing.....	8	3	2		2		1
Chemicals and allied products.....	2		1	1			
Rubber products.....	1		1				
Miscellaneous manufacturing.....	7	1	2	2	1		1
<i>Nonmanufacturing</i>							
Extraction of minerals.....	11	4	4	1	1		1
Transportation and communication.....	6	3	2		1		
Trade.....	27	13	5	4	4	1	
Domestic and personal service.....	16	12	1	1	1	1	
Professional service.....	1		1				
Building and construction.....	37	18	11	5	3		
Agriculture and fishing.....	3	2			1		
WPA, relief, and resettlement projects.....	1	1					
Other nonmanufacturing industries.....	2		1			1	

About 44 percent of the strikes ending in May were settled through negotiations directly between the employers and representatives of organized workers. These included a similar proportion (44 percent) of the workers involved in strikes ending in the month. The strikes settled with the aid of Government officials or boards amounted to about 41 percent of the total and included half of the total workers involved in strikes ending in May. There were no formal settlements in 12 percent of the strikes ending in the month. Some of these strikes were ended by the return of employees to work without settlements, and in other cases, employers replaced the strikers with new workers, moved to another locality, or went out of business.

TABLE 6.—*Methods of Negotiating Settlements of Strikes Ending in May 1940*

Negotiations toward settlements carried on by—	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total	215	100.0	56,265	100.0
Employers and workers directly	1	.5	91	.2
Employers and representatives of organized workers directly	94	43.6	24,769	44.0
Government officials or boards	87	40.5	27,720	49.2
Private conciliators or arbitrators	7	3.3	825	1.5
Terminated without formal settlement	26	12.1	2,860	5.1

Of the 215 strikes ending in May, about 42 percent resulted in substantial gains to the workers, 37 percent were compromised, and 15 percent resulted in little or no gains to the workers. The workers obtaining compromise settlements were the largest group (66½ percent) and those who substantially won their demands amounted to one-fourth of the total workers involved.

TABLE 7.—*Results of Strikes Ending in May 1940*

Result	Strikes		Workers involved	
	Number	Percent of total	Number	Percent of total
Total	215	100.0	56,265	100.0
Substantial gains to workers	90	41.9	14,015	24.9
Partial gains or compromises	80	37.2	37,426	66.5
Little or no gains to workers	33	15.3	3,781	6.7
Jurisdiction, rival union, or faction settlements	12	5.6	1,043	1.9

Approximately half of the strikes over union-organization matters were successful from the workers' point of view, about one-third were compromised, and in 16 percent little or nothing was gained. In the strikes over wage-and-hour issues, 45 percent were compromised, 36 percent were won by the workers, and about 19 percent were lost.

Of the workers involved in the strikes over wages and hours, a very large proportion (about 89 percent) obtained compromise settlements. In the union-organization strikes, about 46 percent of the workers substantially won their demands and about the same number (48 percent) obtained compromise settlements.

TABLE 8.—Results of Strikes Ending in May 1940, in Relation to Major Issues Involved

Major issue	Total	Strikes resulting in—			
		Substan- tial gains to workers	Partial gains or comprom- ises	Little or no gains to workers	Jurisdic- tion, rival union, or faction settle- ments
Number of strikes					
All issues.....	215	90	80	33	12
Wages and hours.....	75	27	34	14	
Wage increase.....	61	22	29	10	
Wage decrease.....	2		1	1	
Wage increase, hour decrease.....	7	4	1	2	
Hour increase.....	2	1		1	
Hour decrease.....	3		3		
Union organization.....	90	51	32	16	
Recognition.....	17	9	5	3	
Recognition and wages.....	17	7	7	3	
Recognition and hours.....	1			1	
Recognition, wages, and hours.....	19	12	4	3	
Closed or union shop.....	30	16	11	3	
Discrimination.....	13	7	3	3	
Strengthening bargaining position.....	2		2		
Miscellaneous.....	41	12	14	3	12
Sympathy.....	1		1		
Rival unions or factions.....	4				4
Jurisdiction.....	8				8
Other.....	28	12	13	3	
Number of workers involved					
All issues.....	56,265	14,015	37,426	3,781	1,043
Wages and hours.....	28,986	2,197	25,706	1,083	
Wage increase.....	20,956	2,099	18,003	854	
Wage decrease.....	6,545		6,500	45	
Wage increase, hour decrease.....	350	86	97	167	
Hour increase.....	29	12		17	
Hour decrease.....	1,106		1,106		
Union organization.....	16,168	7,369	7,679	1,120	
Recognition.....	1,130	856	246	28	
Recognition and wages.....	3,032	814	1,938	280	
Recognition and hours.....	28			28	
Recognition, wages, and hours.....	1,847	1,564	164	119	
Closed or union shop.....	7,859	3,830	3,845	184	
Discrimination.....	1,852	305	1,066	481	
Strengthening bargaining position.....	420		420		
Miscellaneous.....	11,111	4,449	4,041	1,578	1,043
Sympathy.....	12		12		
Rival unions or factions.....	172				172
Jurisdiction.....	871				871
Other.....	10,056	4,449	4,029	1,578	

ACTIVITIES OF THE UNITED STATES CONCILIATION SERVICE, JULY 1940

THE United States Conciliation Service, in July disposed of 352 situations, involving 99,348 workers. The services of this agency were requested by the employees, employers, and other interested parties.

Of these situations, 212 were strikes, threatened strikes, lock-outs, and controversies, involving 90,378 workers. The remaining situations, involving 8,970 workers, were services rendered such as filling requests for information, adjusting complaints, consulting with labor and management, etc.

The facilities of the Service were used in 26 major industrial fields, such as building trades, and the manufacture of foods, iron and steel, textiles, etc. (table 1), and were utilized by employees and employers in 43 States, Alaska, and the District of Columbia (table 2).

TABLE 1.—Situations Disposed of by U. S. Conciliation Service, July 1940, by Industries

Industry	Disputes		Other situations		Total	
	Num- ber	Workers involved	Num- ber	Workers involved	Num- ber	Workers involved
All industries.....	212	90, 378	140	8, 970	352	99, 348
Agriculture.....	1	65	1	25	2	90
Automobile.....	8	460	2	2	10	462
Building trades.....	17	5, 270	16	1, 128	33	6, 398
Chemicals.....	3	850	4	702	7	1, 552
Communications.....	2	10, 500	1	50	3	10, 550
Domestic and personal.....	5	849	6	59	11	908
Food.....	30	6, 525	13	1, 160	43	7, 685
Furniture.....	8	713	3	313	11	1, 026
Iron and steel.....	25	4, 495	5	169	30	4, 664
Leather.....	2	1, 027	4	142	6	1, 169
Lumber.....	9	1, 154	1	65	10	1, 219
Machinery.....	21	9, 868	9	12	30	9, 880
Maritime.....	6	6, 132	1	250	7	6, 382
Mining.....	3	6, 021	2	2	5	6, 023
Nonferrous metals.....	7	4, 318	1	196	8	4, 514
Paper.....	3	96	2	11	5	107
Petroleum.....			3	327	3	327
Printing.....	7	292	3	25	10	317
Rubber.....	5	1, 771	1	3	6	1, 774
Stone, clay, and glass.....	4	389	5	128	9	517
Textile.....	8	7, 103	11	1, 416	19	8, 519
Tobacco.....	4	7, 800			4	7, 800
Trade.....	10	1, 945	5	978	15	2, 923
Transportation.....	12	1, 832	17	239	29	2, 071
Transportation equipment.....	3	10, 071	3	3	6	10, 074
Utilities.....	2	9			2	9
Unclassified.....	7	823	21	1, 565	28	2, 388

TABLE 2.—Situations Disposed of by U. S. Conciliation Service, July 1940, by States

State	Disputes		Other situations		Total	
	Num- ber	Workers involved	Num- ber	Workers involved	Num- ber	Workers involved
All States.....	212	90,378	140	8,970	352	99,348
Alabama.....	11	800	1	136	12	996
Alaska.....	2	1,900	1	200	3	2,100
Arkansas.....	4	444			4	444
California.....	12	8,230	10	23	22	8,253
Colorado.....	1	43	2	125	3	168
Connecticut.....	4	4,645	2	26	6	4,671
District of Columbia.....	4	544	9	63	13	607
Florida.....	7	3,046	3	73	10	3,119
Georgia.....	4	209	5	526	9	735
Illinois.....	9	2,066	6	102	15	2,168
Indiana.....	11	5,656	11	143	22	5,799
Iowa.....	4	609	3	12	7	621
Kansas.....	1	16			1	16
Kentucky.....	5	2,907	3	9	8	2,916
Louisiana.....	6	1,447	6	8	12	1,455
Maine.....	1	3,000			1	3,000
Maryland.....	2	225	4	54	6	279
Massachusetts.....	10	2,542	3	652	13	3,194
Michigan.....	6	698	2	2	8	700
Minnesota.....	4	735	1	1	5	736
Mississippi.....	1	936	1	15	2	951
Missouri.....	7	827	3	321	10	1,148
Nebraska.....	1	20	1	1	2	21
Nevada.....			1	900	1	900
New Hampshire.....	1	5			1	5
New Jersey.....	9	11,784	2	2	11	11,786
New Mexico.....			1	1	1	1
New York.....	15	15,718	17	1,102	32	16,820
North Carolina.....	4	70	3	40	7	110
North Dakota.....	1	33			1	33
Ohio.....	15	3,840	8	464	23	4,304
Oklahoma.....			1	1	1	1
Oregon.....	3	2,115	1	250	4	2,365
Pennsylvania.....	18	3,940	10	1,391	28	5,331
Rhode Island.....	1	165	1	1	2	166
South Carolina.....	1	1	4	1,403	5	1,404
South Dakota.....	1	18			1	18
Tennessee.....	1	60	2	3	3	63
Texas.....	3	319	4	4	7	323
Utah.....	4	5,946			4	5,946
Virginia.....	2	2,579	1	10	3	2,580
Washington.....	4	794	5	703	9	1,497
West Virginia.....	4	104	1	3	5	107
Wisconsin.....	8	1,291			8	1,291
Wyoming.....			1	200	1	200

Labor Turn-Over

FACTORY-LABOR TURN-OVER, 1931 TO 1939

THE MOBILITY of labor continues to be one of industry's major problems. The attainment of efficient production schedules in manufacturing plants depends in large measure on a stabilized operating personnel, since a rapidly changing working force lowers the volume and increases the cost of production. To provide for a better understanding of the problem and its characteristics as a preliminary to the curtailment of excessive changes in personnel, the Bureau of Labor Statistics has for a number of years collected and compiled statistics on labor turn-over in manufacturing industries.

In 1929, when the Bureau of Labor Statistics undertook the collection of data on labor turn-over rates, the only available material was the abbreviated series started at Brown University and later carried on by the Metropolitan Life Insurance Co. The coverage, at that time, included about 400 manufacturing establishments employing some 700,000 workers. Subsequently, with the voluntary cooperation of representative manufacturing concerns, the Bureau of Labor Statistics has expanded the coverage to include more than 6,000 reporting firms with employment rolls of approximately 2,500,000.

Definition of Terms

The monthly reports published by the Bureau show the quit, discharge, lay-off, total separation, and accession rates per 100 employees.

The important labor turn-over variables are defined by the Bureau of Labor Statistics as follows:

An accession is the hiring of a new employee or the rehiring of an old employee.

A separation is a termination of employment of any of the three following kinds: Quits, lay-offs, and discharges.

A quit is a termination of employment, generally initiated by the worker because of his desire to leave, but sometimes due to his physical incapacity.

A discharge is a termination of employment at the will of the employer, with prejudice to the worker because of some fault on the part of the worker.

A lay-off is a termination of employment at the will of the employer, without prejudice to the worker. A permanent lay-off, a long lay-off, an indefinite lay-off, and a short, definite lay-off with the name of the worker removed from the pay roll are counted by the Bureau as lay-offs; but a short, definite lay-off with the name of the worker remaining on the pay roll is not counted as a separation. (It is recognized that some companies retain persons on the pay roll and give them

extended vacations when business is slow; other companies take them off the pay roll but promise to reemploy them when there is work. This variation in policy interferes with complete comparability in the monthly reports received from the companies and causes some distortion in the general lay-off rate.)

Transfers from one plant to another of the same company are not considered accessions or separations.

Method of Computation

The items of separation and accession are divided by the average number on the pay roll and multiplied by 100 to get the rate per 100 employees for the month. In compiling the rates the actual numbers for the several establishments are added and the general rates computed from the grand total. Thus, each establishment has an influence or "weight" in the rate in proportion to its size.

If an equivalent annual rate is desired, the monthly rate can be multiplied by 11.77 if the month has 31 days; by 12.17 if it is a 30-day month; by 13.04 if it is a 28-day month; and by 12.62 if it is a 29-day month.

In comparing monthly rates the number of days in the month should be considered, as no adjustment is made in the monthly rate because of the number of its days. With the adjustment in the equivalent yearly rate this latter figure affords a more exact comparison as between months.

Summary of Annual Labor Turn-Over in Specified Industries

One of the more important considerations in turn-over is the quit rate. It reflects in considerable degree the attitude of the worker toward his employment and may not be affected by the policies prescribed by the employer. As it has a tendency to vary inversely with the lay-off rate, it may be considered a barometer of new job opportunities within the various industries and in the different localities. Extremely low quit rates prevailed in all industries in 1932. This was particularly true in industries manufacturing construction material, such as brick, tile, and terra cotta, showing an annual quit rate of only 3.41 per 100 employees, and sawmills with 9.48, both rates being the lowest reported over the 8- and 9-year periods for which the information is available. Beginning with 1933, increased production occurred in practically all industries until the latter part of 1937. In 1938 the quit rates in the majority of industries for which data are available declined even below the 1932 level. Sharp increases in the quit rates, however, were shown in a number of industries in 1939 compared with 1938. Outstanding among these were automobiles and bodies, increasing from 4.87 in 1938 to 10.09 in 1939; machine tools, from 5.55 to 9.84; and radios and phonographs, from 12.77 to 19.38 per 100 employees. Small declines in the quit rates for this period were noted in cement, glass, and newspaper printing.

Discharges represent only a small percentage of the total separations. The rate for this type of separations ranged from a high point of 5.53 per 100 employees in sawmills in 1931 to a low of 0.28 in rubber boots and shoes in 1938.

Available records indicate that beginning with 1930, an important change occurred in the nature of separations. Prior to that year the greater percentage of separations were voluntary and, therefore, determined by the worker. After 1930, the voluntary separations decreased and lay-offs predominated. As lay-offs are initiated by the employer and usually are due to lack of work, such an increase indicates that the conditions of the labor market had become less favorable to the employee. Previously when a worker left his job voluntarily, he usually felt assured of another and probably better position. As the lay-offs increased, job opportunities declined, and this condition had an impression not only on workers in industries reporting a large number of lay-offs but in industries with a comparatively stable working force.

During the depression, the seriousness of the condition in some industries was reflected by the fact that the rate of lay-offs reported annually exceeded the average number of workers on the pay roll. Notable for high lay-off rates were the brick, tile, and terra cotta industry, which reported a rate of 132.78 in 1932, and the slaughtering and meat packing industry, with a rate of 111.97 in 1934. No records are available as to the period of unemployment or the number of times the same employees were reported as lay-offs. Lay-off rates decreased generally until 1939 when more stable employment conditions appear to have prevailed in nearly all industries. However, wide differences still existed in different industries. Thus, the highest lay-off rate was 70.86, reported in slaughtering and meat packing, and the lowest, 6.01, in plants manufacturing machine tools.

Because of seasonal influences in many industries, high annual separation rates are often accompanied by high annual accession rates. At the same time that slaughtering and meat packing showed a total separation rate of 130.30 in 1934, the accession rate reached the highest point (133.42) of a 9-year period. Nine-year peaks were also reached in 1934, for automobiles and bodies, in both the total separations and accessions, with rates of 117.30 and 144.23, respectively. On the other hand, the iron and steel industry reported a total separation rate of only 14.94 in 1939 and accessions at the rate of 36.11, indicating continuous operations and some expansion.

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It is of particular interest that in 31 of the 33 industries, the annual accession rate exceeded the total separation rate in 1939. Outstanding increases occurred in the aircraft industry with a total separation rate of 38.58 and an accession rate of 111.66; electrical machinery, with rates of 26.33 and 43.81; foundries and machine shops, with 25.68 and 44.56; iron and steel, with 14.94 and 36.11; and shipbuilding, with 31.00 and 62.48.

Annual quit, discharge, lay-off, total separation, and accession rates for 33 manufacturing industries for which adequate data are available are shown in table 1. The figures for "all manufacturing" include, in addition, information concerning many other industries.

TABLE 1.—Annual Labor Turn-Over Rates (per 100 Employees) in All Manufacturing and in 33 Separate Industries

QUIT RATES

Industry	1931	1932	1933	1934	1935	1936	1937	1938	1939
All manufacturing.....	11.39	8.34	10.66	10.67	10.37	13.02	14.97	7.46	9.52
Aircraft.....									15.29
Automobiles and bodies.....	13.11	10.06	14.50	22.21	15.56	15.86	13.68	4.87	10.09
Automobile parts.....	11.01	8.99	15.99	19.47	13.36	19.12	20.91	5.86	8.33
Boots and shoes.....	19.11	11.55	11.55	10.46	7.93	9.88	12.72	8.96	8.93
Brick, tile, and terra cotta.....		3.41	6.43	11.61	19.45	14.20	15.00	7.50	9.12
Cast-iron pipe.....									7.32
Cement.....								5.61	4.95
Cigars and cigarettes.....		22.17	16.17	16.16	14.32	18.78	21.36	12.99	15.70
Cotton manufacturing.....	16.32	13.11	20.08	18.62	13.98	17.19	18.03	11.89	16.65
Electrical machinery.....		5.07	7.12	5.77	7.01	10.32	13.62	6.57	7.63
Foundries and machine shops.....	7.58	3.71	6.19	8.20	9.06	13.92	14.18	6.26	6.61
Furniture.....	9.71	5.20	9.31	7.42	8.57	15.72	20.86	10.02	9.40
Glass.....								5.68	4.34
Hardware.....		4.65	5.96	6.71	10.86	10.13	17.28	5.56	8.05
Iron and steel.....	9.39	7.10	7.67	8.92	9.42	12.48	25.56	4.85	4.92
Knit goods.....							17.39	9.73	11.58
Machine tools.....								5.55	9.84
Men's clothing.....		11.25	9.92	9.20	9.47	10.50	11.73	8.42	9.06
Paints and varnishes.....								6.13	10.88
Paper and pulp.....								5.62	7.39
Petroleum refining.....		4.82	5.62	5.79	5.74	7.41	6.38	4.28	4.91
Printing: Book and job.....								4.76	5.60
Printing: Newspapers.....								3.80	3.57
Radios and phonographs.....								12.77	19.38
Rayon and allied products.....							10.83	7.65	6.98
Rubber boots and shoes.....								7.10	9.58
Rubber tires.....	10.30	5.98	8.93	6.02	5.32	8.19	8.17	6.27	5.86
Sawmills.....	16.17	9.48	17.11	14.41	35.87	21.54	27.66	14.75	16.47
Shipbuilding.....									9.07
Silk and rayon goods.....								12.03	13.18
Slaughtering and meat packing.....	15.61	10.48	11.38	13.72	9.01	13.94	10.78	6.74	7.22
Steam and hot-water heating apparatus.....								6.00	8.52
Woolen and worsted goods.....							12.56	9.36	13.10

TABLE 1.—Annual Labor Turn-Over Rates (per 100 Employees) in All Manufacturing and in 33 Separate Industries—Continued

DISCHARGE RATES									
Industry	1931	1932	1933	1934	1935	1936	1937	1938	1939
All manufacturing	2.72	1.96	2.49	2.24	2.29	2.63	2.38	1.29	1.52
Aircraft									3.38
Automobiles and bodies	3.99	2.65	4.81	4.68	3.21	3.08	2.24	.75	.84
Automobile parts	3.83	1.92	3.91	4.90	3.94	5.17	3.96	1.27	1.90
Boots and shoes	4.46	2.74	2.93	2.64	2.25	2.63	2.23	1.41	1.50
Brick, tile, and terra cotta		3.01	1.95	2.40	1.85	2.85	3.02	1.46	1.71
Cast-iron pipe									1.76
Cement								1.59	.81
Cigars and cigarettes		4.08	3.61	2.74	2.67	2.48	1.57	1.37	1.67
Cotton manufacturing	4.53	3.24	4.56	3.73	3.25	3.36	3.02	2.08	2.70
Electrical machinery		1.22	1.16	1.43	1.40	1.83	2.11	.77	.85
Foundries and machine shops	2.74	1.23	2.00	2.37	3.07	3.70	3.36	.96	1.18
Furniture	4.02	1.79	3.72	2.77	2.72	3.90	3.76	2.19	2.55
Glass								1.14	1.08
Hardware		.90	1.12	1.28	4.02	2.15	2.51	.88	2.00
Iron and steel	1.24	.66	1.28	1.07	1.02	1.10	1.00	.66	.65
Knit goods							1.11	1.14	1.55
Machine tools								.96	1.42
Men's clothing		1.07	1.43	1.16	1.41	.98	.86	.80	1.15
Paints and varnishes								1.36	2.19
Paper and pulp								1.74	1.46
Petroleum refining		1.26	.95	1.68	1.37	1.33	.98	.62	.85
Printing: Book and job								1.74	1.72
Printing: Newspapers								.82	1.94
Radio and phonographs								1.63	2.63
Rayon and allied products							3.04	2.43	1.70
Rubber boots and shoes								.29	.88
Rubber tires	1.60	1.11	1.58	.69	.62	.91	1.05	.48	.73
Sawmills	5.53	4.10	5.09	5.40	4.36	4.04	3.48	2.50	2.30
Shipbuilding									1.54
Silk and rayon goods								.95	1.02
Slaughtering and meat packing	5.47	3.91	4.58	4.61	2.80	3.11	2.49	1.84	1.91
Steam and hot-water heating apparatus								1.20	1.28
Woolen and worsted goods							1.39	.88	1.54

LAY-OFF RATES ¹									
Industry	1931	1932	1933	1934	1935	1936	1937	1938	1939
All manufacturing	34.27	41.68	32.23	36.26	30.08	24.70	35.76	40.47	26.67
Aircraft									19.91
Automobiles and bodies	74.14	86.16	77.65	90.41	51.46	58.92	77.09	89.40	66.51
Automobile parts	56.18	87.02	76.12	92.64	58.71	39.45	84.12	91.01	66.52
Boots and shoes	28.74	26.22	25.06	25.37	23.97	23.34	37.33	30.51	27.31
Brick, tile, and terra cotta		132.78	96.42	96.67	74.58	46.17	67.26	66.99	45.89
Cast-iron pipe									13.02
Cement								77.67	50.07
Cigars and cigarettes		20.44	16.82	34.31	32.24	26.30	22.05	28.89	22.69
Cotton manufacturing	32.60	46.23	31.85	35.01	38.88	20.86	34.22	36.34	20.34
Electrical machinery		51.97	27.90	21.34	18.42	14.62	28.53	44.91	17.85
Foundries and machine shops	43.35	41.45	31.36	37.76	28.51	19.06	30.16	44.97	17.89
Furniture	50.96	54.88	53.28	50.24	33.91	32.38	46.68	49.14	30.90
Glass								36.78	30.27
Hardware		35.14	19.14	14.77	8.03	13.28	35.21	31.70	18.81
Iron and steel	21.18	26.89	17.52	19.91	12.44	8.52	23.60	26.87	9.37
Knit goods							22.96	26.23	16.90
Machine tools								31.60	6.01
Men's clothing		31.69	26.80	31.48	28.86	34.36	51.83	63.19	40.34
Paints and varnishes								17.48	13.17
Paper and pulp								13.01	12.18
Petroleum refining		25.28	19.89	31.85	25.03	24.97	25.15	19.92	19.34
Printing: Book and job								40.31	39.78
Printing: Newspapers								18.46	19.10
Radio and phonographs								69.64	43.07
Rayon and allied products							33.76	30.95	12.27
Rubber boots and shoes								30.73	26.47
Rubber tires	19.55	18.15	19.07	22.79	20.68	7.50	27.82	32.66	13.64
Sawmills	85.89	77.38	51.94	67.99	53.20	52.10	66.99	57.13	37.73
Shipbuilding									20.39
Silk and rayon goods								40.90	36.71
Slaughtering and meat packing	60.18	68.77	70.33	111.97	94.18	71.32	76.86	80.52	70.86
Steam and hot-water heating apparatus								21.54	13.88
Woolen and worsted goods							68.52	77.65	50.29

¹ Including temporary, indeterminate, and permanent lay-offs.

TABLE 1.—Annual Labor Turn-Over Rates (per 100 Employees) in All Manufacturing and in 33 Separate Industries—Continued

TOTAL SEPARATION RATES

Industry	1931	1932	1933	1934	1935	1936	1937	1938	1939
All manufacturing.....	48.38	51.98	45.38	49.17	42.74	40.35	53.11	49.22	37.71
Aircraft.....									38.58
Automobiles and bodies.....	91.24	98.87	96.96	117.30	70.23	77.86	93.01	95.02	77.44
Automobile parts.....	71.02	97.93	96.02	117.01	76.01	63.74	108.99	98.14	76.75
Boots and shoes.....	52.31	40.51	39.54	38.47	34.15	35.85	52.28	40.88	37.74
Brick, tile, and terra cotta.....		139.20	104.80	110.68	95.88	63.22	85.28	75.95	56.72
Cast-iron pipe.....									21.10
Cement.....								84.87	55.83
Cigars and cigarettes.....		46.69	36.60	53.21	49.23	47.56	44.98	43.25	40.06
Cotton manufacturing.....	53.45	62.58	56.49	57.36	56.11	41.41	55.27	50.31	39.69
Electrical machinery.....		58.26	36.27	28.54	26.83	26.77	44.26	52.25	26.33
Foundries and machine shops.....	53.67	46.39	39.55	48.33	40.64	36.68	47.70	52.19	25.68
Furniture.....	64.69	61.87	66.31	60.43	45.20	52.00	71.30	61.35	42.85
Glass.....								43.60	35.69
Hardware.....		40.69	26.22	22.76	22.91	25.56	55.00	38.14	28.86
Iron and steel.....	31.81	34.65	26.47	29.90	22.88	22.10	50.16	32.38	14.94
Knit goods.....							41.46	37.10	30.03
Machine tools.....								38.11	17.27
Men's clothing.....		44.01	38.15	41.84	39.74	45.84	64.42	72.41	50.55
Paints and varnishes.....								24.97	26.24
Paper and pulp.....							28.75	20.37	21.03
Petroleum refining.....		31.36	26.46	39.32	32.14	33.71	32.51	24.82	25.10
Printing: Book and job.....								46.81	47.10
Printing: Newspapers.....								23.08	24.61
Radio and phonographs.....								75.04	65.08
Rayon and allied products.....							47.63	41.03	20.95
Rubber boots and shoes.....								38.12	36.93
Rubber tires.....	31.45	25.24	29.58	29.50	26.62	16.60	37.04	39.41	20.23
Sawmills.....	107.59	90.96	74.14	87.80	93.43	77.68	98.13	74.38	56.50
Shipbuilding.....									31.00
Silk and rayon goods.....								53.88	50.91
Slaughtering and meat packing.....	81.26	83.16	86.29	130.30	105.99	88.37	90.13	89.10	79.99
Steam and hot-water heating apparatus.....								28.74	23.68
Woolen and worsted goods.....							82.47	87.89	64.93

ACCESSION RATES

All manufacturing.....	36.59	39.82	65.20	56.91	50.05	52.16	42.59	46.16	48.85
Aircraft.....									111.66
Automobiles and bodies.....	79.95	81.17	116.59	144.23	84.90	88.92	72.00	89.66	81.77
Automobile parts.....	64.05	81.70	124.64	125.23	91.61	84.43	72.04	101.95	92.71
Boots and shoes.....	50.29	39.64	46.36	41.55	38.21	37.86	43.19	44.11	39.74
Brick, tile, and terra cotta.....		92.72	126.80	108.98	106.62	83.50	64.15	84.08	73.05
Cast-iron pipe.....									27.62
Cement.....								67.83	65.57
Cigars and cigarettes.....		39.16	59.30	52.00	33.47	60.52	42.80	40.46	41.10
Cotton manufacturing.....	47.38	67.48	83.56	53.69	52.33	49.81	38.90	52.25	47.50
Electrical machinery.....		11.86	49.02	32.72	38.44	53.10	43.08	30.64	43.81
Foundries and machine shops.....	30.81	30.23	63.40	58.88	53.62	56.12	46.43	29.84	44.56
Furniture.....	55.55	50.36	85.81	58.69	57.28	68.98	52.74	57.77	54.95
Glass.....								52.35	37.42
Hardware.....		12.12	29.65	27.68	49.35	43.25	38.55	30.82	39.46
Iron and steel.....	20.12	17.86	54.91	33.98	29.58	38.85	32.72	21.36	36.11
Knit goods.....							32.24	39.16	33.76
Machine tools.....								14.80	52.14
Men's clothing.....		45.73	45.13	38.81	46.78	52.16	46.33	73.17	53.93
Paints and varnishes.....								20.71	34.75
Paper and pulp.....								29.62	28.07
Petroleum refining.....		23.94	44.46	38.28	31.55	38.30	33.42	19.49	31.08
Printing: Book and job.....								44.09	51.10
Printing: Newspapers.....								23.80	24.83
Radio and phonographs.....								82.92	78.77
Rayon and allied products.....							28.82	51.18	28.67
Rubber boots and shoes.....								40.45	35.28
Rubber tires.....	21.21	15.24	62.43	28.99	20.86	35.12	12.38	30.90	31.95
Sawmills.....	81.16	75.30	108.79	93.35	103.89	82.56	77.03	77.13	64.96
Shipbuilding.....									62.48
Silk and rayon goods.....								68.18	50.19
Slaughtering and meat packing.....	80.02	75.92	112.26	133.42	87.51	99.37	84.86	89.92	89.05
Steam and hot-water heating apparatus.....								25.41	34.00
Woolen and worsted goods.....							48.61	97.01	67.14

*Monthly Turn-Over Rates in All Manufacturing, January 1930
to December 1939*

In February 1938, the number of workers voluntarily leaving their employment declined to the unusual low of 0.49 per 100 employees, equaled only by the similar figure for the quits of February 1933, the period preceding the bank holiday. Attention has already been directed¹ to the significant relationships between low quit rates and high lay-off rates; namely, that, under such conditions, new positions are not easily obtained. Moreover, when the low quit rate is accompanied not only by a high lay-off rate but also by a low rate of accessions, labor's position may be described as critical. The half year, September 1937–February 1938, was just such a period. The high point for lay-offs in the early thirties came in June 1932 with a figure of 4.83 workers per 100 employees. At the high point in the critical half year, December 1937, 7.77 workers out of every 100 employed were laid off. And in November 1937, accessions were reduced to 1.79 workers per 100 employees, compared with the low accession rate of 2.22 for March 1933.

Labor turn-over rates are most significant when factory employment has either a sharp increase or decline. In the depths of the depression, 1932–33, factory employment was at a much lower level than it was during the autumn of 1937 and in 1938. Nevertheless the rates at which the low points were reached were very different. The suddenness and the severity of the drop in employment in the fall of 1937 was much sharper than it was in 1932. Consequently the turn-over rates for the latter period, particularly the rate of separations, registered greater fluctuations.

For the 144 industries included in the monthly summary of quit rates (see table 2), the curve follows generally that for factory employment. From a high of 18.64 quits per 100 employees in 1930, a low of 8.34 was reached in 1932. The rate increased to 14.97 in 1937, as a result of the great activity in quits during the first 9 months. In 1938, however, the rate declined to 7.46, a point lower than had been recorded for 1932. From the data available, it appears that over a longer period of years, quit rates have a general tendency to decline.

The trend shown in the annual discharge rate over a 10-year period was similar to that of the quit rate. In 1930, when the highest quit rate (18.64) was reported, the discharge rate was 5.04 per 100 employees. In 1938, when the quit rate declined to the lowest level in 10 years, the discharge rate fell to 1.29. The monthly variation in this type of separation was small, with a range only from 0.54 (January 1930) to 0.09 (July and December 1939).

The lowest annual lay-off rate for the 10-year period occurred in 1936 when the rate was 24.70 for every 100 employees, as against

¹ Monthly Labor Review, July 1937: A Review of Factory Labor Turn-Over, 1930–36.

40.47 in 1938 and 41.68 in 1932. In 1930 and during the first 8 months of 1931, the monthly lay-off rate remained at a fairly constant level, but in September and October rose to 4.22 and 5.01, respectively. The monthly figures for 1932 were above the average and it was not until May 1933 that a noticeable decline occurred in this type of separations. During the next 3 years only moderate variations were indicated. In the latter part of 1937, however, the lay-off rate rose from 2.84 in September to 7.77 in December, the highest point reached during 10 years. Moderate declines were noted during 1938, and in 1939 the monthly rates were considerably lower than in the preceding year.

TABLE 2.—Monthly and Annual Labor Turn-Over Rates (per 100 Employees) in Representative Factories, in 144 Industries, January 1930 to December 1939

Class of rates and year	Year	January	February	March	April	May	June	July	August	September	October	November	December
Separations:													
Quits:													
1930.....	18.64	1.85	1.60	1.94	2.11	2.01	1.85	1.35	1.40	1.50	1.29	0.90	0.84
1931.....	11.39	.74	.74	.94	1.14	1.12	1.02	1.10	1.05	1.16	1.00	.72	.66
1932.....	8.34	.71	.71	.86	.91	.68	.66	.63	.67	.76	.65	.54	.56
1933.....	10.66	.65	.49	.53	.63	.84	1.03	1.25	1.22	1.65	.87	.78	.72
1934.....	10.67	.90	.85	.93	1.11	1.01	.94	.70	.75	1.55	.73	.62	.58
1935.....	10.37	.76	.73	.75	.93	1.21	.83	.90	.86	1.05	.89	.77	.69
1936.....	13.02	.71	.68	.86	1.16	1.06	1.13	1.15	1.23	1.57	1.29	1.13	1.05
1937.....	14.97	1.27	1.19	1.43	1.38	1.37	1.89	1.25	1.23	1.59	1.05	.72	.60
1938.....	7.46	.52	.49	.61	.59	.62	.61	.59	.65	.82	.78	.60	.58
1939.....	9.52	.85	.64	.82	.76	.68	.73	.70	.82	1.07	.93	.83	.69
Discharges:													
1930.....	5.04	.54	.62	.60	.53	.48	.46	.32	.36	.36	.32	.24	.21
1931.....	2.72	.19	.20	.26	.31	.28	.23	.25	.22	.24	.21	.17	.16
1932.....	1.96	.19	.18	.21	.22	.16	.14	.14	.14	.14	.14	.15	.15
1933.....	2.49	.15	.13	.14	.15	.18	.26	.26	.31	.27	.24	.22	.18
1934.....	2.24	.18	.19	.21	.23	.22	.18	.19	.19	.16	.19	.15	.15
1935.....	2.29	.18	.18	.17	.20	.17	.20	.20	.21	.19	.21	.20	.18
1936.....	2.63	.20	.17	.19	.21	.20	.23	.23	.27	.26	.24	.21	.22
1937.....	2.38	.21	.22	.24	.23	.21	.19	.21	.19	.19	.19	.16	.14
1938.....	1.29	.11	.11	.11	.10	.13	.11	.09	.10	.12	.12	.10	.09
1939.....	1.52	.10	.10	.13	.10	.13	.12	.12	.14	.14	.17	.15	.12
Lay-offs:¹													
1930.....	35.97	2.70	2.50	2.83	2.57	2.68	3.00	4.17	3.99	3.14	2.88	2.77	2.74
1931.....	34.27	1.95	1.75	1.75	1.96	2.43	3.84	3.32	2.40	4.22	5.01	3.03	2.61
1932.....	41.68	2.45	2.43	3.30	4.60	4.27	4.83	4.47	3.04	3.57	2.67	2.70	3.35
1933.....	32.23	2.76	3.78	3.93	2.00	1.34	1.18	1.98	1.87	2.34	3.47	3.79	3.79
1934.....	36.26	2.35	1.85	2.08	2.04	3.65	3.48	2.96	3.56	3.41	4.38	3.78	2.72
1935.....	30.08	2.10	1.88	2.32	2.60	3.00	3.46	2.57	2.70	1.95	2.03	2.58	2.89
1936.....	24.70	2.66	2.21	1.83	1.92	2.06	1.92	1.84	3.23	1.47	1.72	1.70	2.14
1937.....	35.76	1.90	1.44	1.53	1.48	1.79	1.94	2.06	2.57	2.84	4.45	5.99	7.77
1938.....	40.47	5.45	3.79	3.74	3.85	3.82	3.69	3.13	2.33	2.62	2.40	2.44	3.21
1939.....	26.67	2.24	1.87	2.23	2.60	2.67	2.46	2.54	2.05	1.58	1.81	1.97	2.65
Total separations:													
1930.....	59.65	5.09	4.72	5.37	5.21	5.17	5.31	5.84	5.75	5.00	4.49	3.91	3.79
1931.....	48.38	2.88	2.69	2.95	3.41	3.83	5.09	4.67	3.67	5.62	6.22	3.92	3.43
1932.....	51.98	3.35	3.32	4.37	5.73	5.11	5.63	5.24	3.85	4.47	3.46	3.39	4.06
1933.....	45.38	3.56	4.40	4.60	2.78	2.36	2.47	3.49	3.40	4.26	4.58	4.79	4.69
1934.....	49.17	3.43	2.89	3.22	3.38	4.88	4.60	3.85	4.50	5.12	5.30	4.55	3.45
1935.....	42.74	3.04	2.79	3.24	3.73	4.38	4.49	3.67	3.77	3.19	3.13	3.55	3.76
1936.....	40.35	3.57	3.06	2.88	3.29	3.32	3.28	3.22	4.73	3.30	3.25	3.04	3.41
1937.....	53.11	3.38	2.85	3.20	3.09	3.37	4.02	3.52	3.99	4.62	5.69	6.87	8.51
1938.....	49.22	6.08	4.39	4.46	4.54	4.57	4.41	3.81	3.08	3.56	3.30	3.14	3.88
1939.....	37.71	3.19	2.61	3.18	3.46	3.48	3.31	3.36	3.01	2.79	2.91	2.95	3.46
Accessions:													
1930.....	37.02	3.95	3.94	4.15	3.55	3.28	2.92	2.51	2.71	3.27	2.56	2.05	2.13
1931.....	36.59	2.97	2.82	3.67	3.06	2.79	2.41	3.02	2.60	3.58	2.75	3.63	3.29
1932.....	39.82	4.15	2.75	2.75	2.76	2.59	2.70	3.01	4.21	5.04	3.72	3.07	3.07
1933.....	65.20	3.48	2.56	2.22	4.87	7.21	10.21	9.48	8.59	5.53	3.97	3.71	3.37
1934.....	56.91	5.81	6.71	6.33	5.18	4.19	3.58	3.71	3.24	3.61	4.09	4.32	6.14
1935.....	50.05	6.33	4.23	3.79	3.63	3.01	3.18	4.17	4.60	4.95	5.23	3.63	3.30
1936.....	52.16	3.65	2.95	3.97	4.46	4.05	4.49	4.94	4.72	5.09	4.83	4.60	4.41
1937.....	42.59	4.60	4.71	4.74	4.04	3.56	3.69	3.36	3.36	3.78	2.84	1.79	2.12
1938.....	46.16	3.78	3.13	3.13	2.58	2.84	3.44	4.81	5.29	4.51	5.19	4.24	3.22
1939.....	48.85	4.09	3.06	3.34	2.93	3.29	3.92	4.16	5.06	6.17	5.89	4.10	2.84

¹ Including temporary, indeterminate, and permanent lay-offs.

The total separation rate is merely the sum of the quit, discharge, and lay-off rates. In 5 of the 10 years, total separations exceeded accessions. The net difference between the two was greatest in 1930 when total separations were reported at the rate of 59.65, and accessions at 37.02 per 100 employees. The difference was less in 1931 and 1932. The general improvement in business conditions and the limitations of hours imposed by NRA codes in the spring and summer of 1933 expanded the accession rate so that for the whole year it was much greater than the total separation rate. The next 3 years showed a steady decline in the total separation rate, while the accession rate showed more moderate changes. Curtailed production schedules were indicated by the higher separation and lower accession rates for 1937 and 1938. In 1939, the total separations declined to the lowest level, 37.71, for the 10-year period and a moderate increase over the preceding year was indicated in the accession rate.



LABOR TURN-OVER IN MANUFACTURING, JUNE 1940

ACCESSIONS per 100 employees in more than 6,000 manufacturing establishments with 2½ million employees exceeded total separations in June 1940 for the first time since the previous January. Hirings were reported at the rate of 4.76 per 100 employees, compared with 3.36 in May 1940 and 3.92 in June 1939. Separations occurred at the rate of 3.36 in June as against 3.78 in the preceding month and 3.31 in June 1939. The quit rate at 0.78 and the discharge rate at 0.14 remained virtually unchanged. Miscellaneous separations increased from 0.10 to 0.12. The accession rate for June comprised a rehiring rate of 2.06 and a new hiring rate of 2.70 per 100 employees.

Primarily responsible for the higher accession rate were the boot and shoe industry, in which the rate increased from 1.60 to 4.59 per 100 employees; electrical machinery, from 2.20 to 4.54; foundries and machine shops, from 1.36 to 3.89; iron and steel, from 3.53 to 6.10; men's clothing, from 4.70 to 8.25; shipbuilding, from 6.83 to 10.76; woolen and worsted goods, from 9.06 to 12.17; and aircraft, from 11.77 to 13.27.

Notable decreases in the lay-off rate were indicated in the agricultural-implement industry, showing a decline from 3.32 to 1.72; boots and shoes, from 4.70 to 1.55; brick, tile, and terra cotta, from 3.44 to 1.77; cotton manufacturing, from 4.11 to 2.70; men's clothing, from 6.99 to 3.87; and woolen and worsted goods, from 5.21 to 2.66 per 100 employees. Substantial increases in the lay-off rate were shown in the cement industry, in which the rate increased from 0.44 to 5.40, and in the rubber and tire industry, from 1.85 to 3.88.

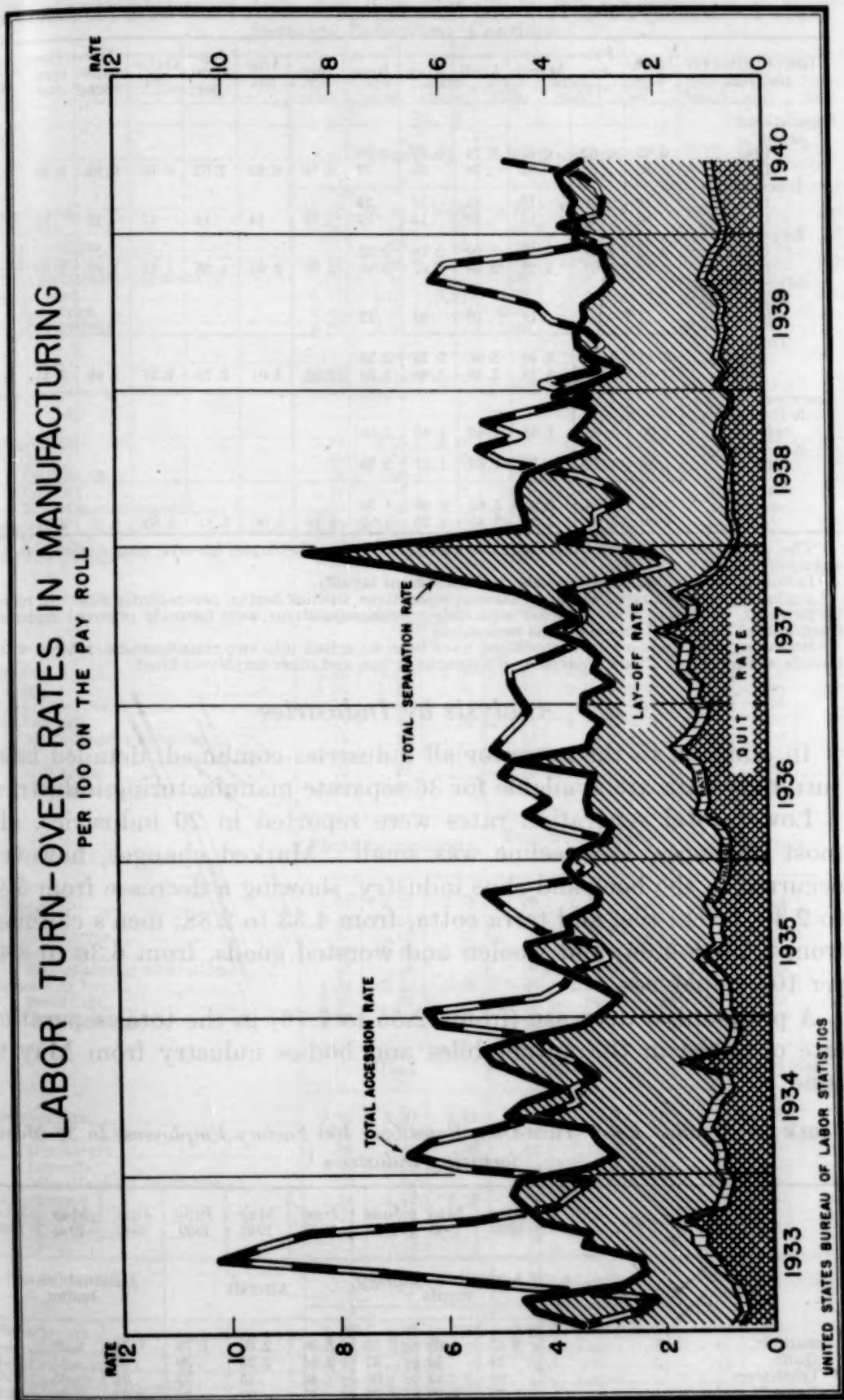


TABLE 1.—Monthly Labor Turn-Over Rates in Representative Factories in 135 Industries¹

Class of turn-over and year	January	February	March	April	May	June	July	August	September	October	November	December	Average
Separations:													
Quits:													
1940.....	0.63	0.62	0.67	0.74	0.77	0.78							
1939.....	.85	.64	.82	.76	.68	.73	0.70	0.82	1.02	0.93	0.83	0.69	0.79
Discharges:													
1940.....	.14	.16	.15	.13	.13	.14							
1939.....	.10	.10	.13	.10	.13	.12	.12	.14	.14	.17	.15	.12	.13
Lay-offs: ²													
1940.....	2.55	2.67	2.53	2.69	2.78	2.32							
1939.....	2.24	1.87	2.23	2.60	2.67	2.46	2.54	2.05	1.58	1.81	1.97	2.65	2.22
Miscellaneous separations: ³													
1940.....	.11	.11	.11	.10	.10	.12							
Total:													
1940.....	3.43	3.56	3.46	3.66	3.78	3.36							
1939.....	3.19	2.61	3.18	3.46	3.48	3.31	3.36	3.01	2.79	2.91	2.95	3.46	3.14
Accessions:													
Rehirings,													
1940.....	1.96	1.26	1.38	1.42	1.49	2.06							
New hirings,													
1940.....	1.78	1.72	1.56	1.63	1.87	2.70							
Total:													
1940.....	3.74	2.98	2.94	3.05	3.36	4.76							
1939.....	4.09	3.06	3.34	2.93	3.29	3.92	4.16	5.06	6.17	5.89	4.10	2.84	4.07

¹ The various turn-over rates represent the number of quits, discharges, lay-offs, total separations, and accessions per 100 employees.

² Including temporary, indeterminate, and permanent lay-offs.

³ Beginning with January 1940, miscellaneous separations, such as deaths, permanently disabled, retired on pensions, etc., have been reported separately. Such separations were formerly reported under the classification "quits and miscellaneous separations."

⁴ Beginning with January 1940, accessions have been separated into two classifications—rehires, which include workers hired after a separation of 3 months or less, and other employees hired.

Analysis by Industries

In addition to the rates for all industries combined, detailed labor turn-over data are available for 36 separate manufacturing industries.

Lower total separation rates were reported in 20 industries. In most instances, the decline was small. Marked changes, however, occurred in the boot and shoe industry, showing a decrease from 5.44 to 2.36; brick, tile, and terra cotta, from 4.33 to 2.88; men's clothing, from 8.08 to 4.96; and woolen and worsted goods, from 6.36 to 3.48 per 100 employees.

A pronounced decrease (from 12.55 to 7.76) in the total separation rate occurred in the automobiles and bodies industry from May to June.

TABLE 2.—Monthly Labor Turn-Over Rates (per 100 Factory Employees) in 36 Manufacturing Industries¹

Class of turn-over	June 1940	May 1940	June 1939	June 1940	May 1940	June 1939	June 1940	May 1940	June 1939
	Agricultural implements			Aircraft			Automobiles and bodies		
Separations	2.47	4.05	3.50	3.06	2.69	1.73	7.76	6.28	12.55
Quits.....	.54	.52	.37	2.54	2.23	.99	.63	.87	.56
Discharges.....	.09	.10	.06	.40	.35	.32	.04	.05	.07
Lay-offs.....	1.72	3.32	3.07	.11	.09	.42	6.93	5.30	11.92
Miscellaneous separations ².....	.12	.11		.01	.02		.16	.06	
Accessions³	3.55	1.36	2.35	13.27	11.77	8.90	2.22	2.33	3.04
Rehirings.....	1.52	.50		.13	.82		1.60	1.28	
New hirings.....	2.03	.86		13.14	10.95		.62	1.05	

See footnotes at end of table.

TABLE 2.—Monthly Labor Turn-Over Rates (per 100 Factory Employees) in 36 Manufacturing Industries—Continued

Class of turn-over	June 1940	May 1940	June 1939	June 1940	May 1940	June 1939	June 1940	May 1940	June 1939
	Automobile parts			Boots and shoes			Brass, bronze, and copper products		
Separations.....	9.18	8.79	9.06	2.36	5.44	1.95	1.91	2.45	1.67
Quits.....	.76	.93	.67	.62	.59	.74	.87	.67	.31
Discharges.....	.21	.22	.14	.10	.10	.12	.10	.06	.04
Lay-offs.....	8.14	7.53	8.25	1.55	4.70	1.09	.90	1.65	1.32
Miscellaneous separations ¹.....	.07	.11	-----	.09	.05	-----	.04	.07	-----
Accessions ²	6.17	4.03	5.94	4.59	1.60	5.85	3.93	3.22	2.06
Rehirings.....	3.08	1.57	-----	2.93	1.02	-----	1.44	1.86	-----
New hirings.....	3.09	2.46	-----	1.66	.58	-----	2.49	1.36	-----
	Brick, tile, and terra cotta			Cast-iron pipe			Cement		
Separations.....	2.88	4.33	3.51	2.67	1.43	1.39	6.00	.82	2.31
Quits.....	.88	.75	.83	.96	.81	.49	.48	.22	.26
Discharges.....	.18	.09	.17	.16	.17	.21	.02	.07	.04
Lay-offs.....	1.77	3.44	2.51	1.52	.41	.69	5.40	.44	2.01
Miscellaneous separations ¹.....	.05	.05	-----	.03	.04	-----	.10	.09	-----
Accessions ²	7.59	7.37	7.47	2.86	2.39	3.51	3.45	3.62	8.23
Rehirings.....	3.28	4.13	-----	.60	.93	-----	.59	1.16	-----
New hirings.....	4.31	3.24	-----	2.26	1.46	-----	2.86	2.46	-----
	Cigars and cigarettes			Cotton manufacturing			Dyeing and finishing textiles		
Separations.....	2.33	2.12	2.10	4.28	5.94	3.75	3.04	3.04	3.62
Quits.....	1.25	1.16	1.36	1.30	1.48	1.48	.85	.95	.60
Discharges.....	.11	.17	.14	.16	.23	.23	.11	.13	.20
Lay-offs.....	.78	.63	.60	2.70	4.11	2.04	2.02	1.92	2.82
Miscellaneous separations ¹.....	.19	.16	-----	.12	.12	-----	.06	.04	-----
Accessions ²	2.91	3.31	3.08	4.09	3.46	3.89	2.36	1.41	3.39
Rehirings.....	.70	.79	-----	2.20	1.64	-----	.86	.83	-----
New hirings.....	2.21	2.52	-----	1.89	1.82	-----	1.50	.58	-----
	Electrical machinery			Foundries and machine shops			Furniture		
Separations.....	1.76	2.23	2.58	1.96	2.94	2.45	3.06	3.44	3.69
Quits.....	.59	.55	.66	.72	.74	.64	.88	.95	.85
Discharges.....	.07	.06	.05	.19	.17	.09	.22	.19	.20
Lay-offs.....	.87	1.44	1.87	.96	1.93	1.72	1.86	2.17	2.64
Miscellaneous separations ¹.....	.23	.18	-----	.09	.10	-----	.10	.13	-----
Accessions ²	4.54	2.20	3.00	3.89	1.36	2.53	4.54	4.01	5.88
Rehirings.....	1.97	.99	-----	1.25	.94	-----	2.37	2.61	-----
New hirings.....	2.57	1.21	-----	2.64	.42	-----	2.17	1.40	-----
	Glass			Hardware			Iron and steel		
Separations.....	3.65	3.30	2.61	2.62	3.21	1.37	1.10	1.71	.99
Quits.....	.50	.28	.36	1.02	1.16	.51	.42	.38	.36
Discharges.....	.08	.04	.06	.07	.09	.16	.07	.06	.04
Lay-offs.....	2.98	2.90	2.19	1.43	1.85	.70	.37	1.12	.59
Miscellaneous separations ¹.....	.09	.08	-----	.10	.11	-----	.24	.15	-----
Accessions ²	2.36	1.92	4.25	2.57	2.17	2.05	6.10	3.53	1.95
Rehirings.....	.74	.74	-----	.47	.35	-----	3.26	1.75	-----
New hirings.....	1.62	1.18	-----	2.10	1.82	-----	2.84	1.78	-----
	Knit goods			Machine tools			Men's clothing		
Separations.....	3.20	4.47	2.96	2.21	2.36	1.25	4.96	8.08	3.70
Quits.....	.81	.83	.91	1.28	1.29	.60	.88	.66	.85
Discharges.....	.11	.12	.10	.39	.44	.06	.15	.38	.09
Lay-offs.....	2.23	3.48	1.95	.47	.53	.59	3.87	6.99	2.76
Miscellaneous separations ¹.....	.05	.04	-----	.07	.10	-----	.06	.05	-----
Accessions ²	2.52	1.33	2.98	5.38	4.15	4.01	8.25	4.70	8.91
Rehirings.....	1.50	.60	-----	.33	.47	-----	6.66	3.30	-----
New hirings.....	1.02	.73	-----	5.05	3.68	-----	1.59	1.40	-----

See footnotes at end of table.

TABLE 2.—Monthly Labor Turn-Over Rates (per 100 Factory Employees) in 36 Manufacturing Industries—Continued

Class of turn-over	June 1940	May 1940	June 1939	June 1940	May 1940	June 1939	June 1940	May 1940	June 1939
	Paints and varnishes			Paper and pulp			Petroleum refining		
Separations.....	1.89	2.02	1.90	1.71	1.70	1.72	1.57	1.39	2.38
Quits.....	.51	.57	.92	.49	.51	.52	.34	.23	.57
Discharges.....	.39	.25	.06	.10	.10	.14	.08	.05	.10
Lay-offs.....	.94	1.07	.92	.95	.91	1.06	.97	1.01	1.71
Miscellaneous separations ¹.....	.05	.13	-----	.17	.18	-----	.18	.10	-----
Accessions ²	2.21	2.60	2.31	2.82	2.72	1.70	2.54	2.62	5.57
Rehirings.....	.70	.83	-----	.59	.53	-----	.49	1.17	-----
New hirings.....	1.51	1.77	-----	2.23	2.19	-----	2.05	1.45	-----
	Printing and publishing						Radios and phonographs		
	Book and job			Newspapers					
Separations.....	4.50	4.37	3.77	1.96	2.10	2.20	3.48	2.64	3.70
Quits.....	.57	.51	.44	.27	.26	.36	1.51	1.39	2.04
Discharges.....	.14	.22	.19	.13	.15	.07	.16	.25	.11
Lay-offs.....	3.80	3.46	3.14	1.48	1.60	1.77	1.81	.97	1.55
Miscellaneous separations ¹.....	.08	.18	-----	.08	.09	-----	-----	.03	-----
Accessions ²	3.67	3.82	3.73	1.55	1.75	.94	7.93	7.80	7.87
Rehirings.....	1.83	2.43	-----	.69	1.06	-----	2.72	4.61	-----
New hiring.....	1.84	1.39	-----	.86	.69	-----	5.21	3.19	-----
	Rayon and allied products			Rubber boots and shoes			Rubber tires		
Separations.....	1.62	.95	2.47	2.56	3.72	2.70	4.39	2.46	2.25
Quits.....	.56	.57	.60	.78	.78	.76	.39	.33	.39
Discharges.....	.15	.11	.15	.08	.21	.07	.05	.05	.08
Lay-offs.....	.90	.25	1.72	1.50	2.56	1.87	3.88	1.85	1.78
Miscellaneous separations ¹.....	.01	.02	-----	.20	.17	-----	.07	.23	-----
Accessions ²	2.17	2.16	3.74	3.40	3.21	3.43	1.99	1.35	3.11
Rehirings.....	.36	.73	-----	1.39	1.71	-----	.94	.87	-----
New hirings.....	1.81	1.43	-----	2.01	1.50	-----	1.05	.48	-----
	Sawmills			Shipbuilding			Silk and rayon goods		
Separations.....	4.52	4.19	3.83	5.30	5.95	1.96	6.30	6.90	3.11
Quits.....	1.03	1.11	1.04	1.05	.85	.59	1.10	.78	.85
Discharges.....	.15	.19	.37	.27	.29	.11	.14	.10	.06
Lay-offs.....	3.19	2.76	2.42	3.89	4.66	1.26	4.95	5.90	2.20
Miscellaneous separations ¹.....	.15	.13	-----	.09	.15	-----	.11	.12	-----
Accessions ²	5.27	5.45	5.64	10.76	6.83	5.51	3.62	3.10	3.53
Rehirings.....	2.05	1.99	-----	1.61	2.59	-----	1.64	1.97	-----
New hirings.....	3.22	3.46	-----	9.15	4.24	-----	1.98	1.13	-----
	Slaughtering and meat packing			Steam and hot-water heating apparatus			Woolen and worsted goods		
Separations.....	4.79	6.13	5.89	1.83	1.60	1.15	3.48	6.36	2.99
Quits.....	.60	.55	.60	.87	.86	.71	.69	1.02	1.19
Discharges.....	.20	.17	.15	.13	.10	.07	.06	.07	.09
Lay-offs.....	3.83	5.14	5.14	.72	.65	.37	2.66	5.21	1.71
Miscellaneous separations ¹.....	.16	.27	-----	.11	.08	-----	.07	.06	-----
Accessions ²	9.16	8.15	7.49	2.99	1.92	2.09	12.17	9.06	6.98
Rehirings.....	4.96	5.62	-----	.61	.92	-----	8.66	8.01	-----
New hirings.....	4.20	2.53	-----	2.38	1.00	-----	3.51	1.05	-----

¹ No individual industry data shown unless reports cover at least 25 percent of industrial employment.² Prior to January 1940, miscellaneous separations were included with "quits."³ No break-down of accessions prior to January 1940.

Wages and Hours of Labor

EARNINGS AND HOURS IN THE IRON AND STEEL INDUSTRY, APRIL 1938 ¹

PART 2.—OCCUPATIONAL DIFFERENCES

Summary

EARNINGS in the iron and steel industry are dependent in large part on the specific occupations of the individual employees. It should not be inferred that all rollers or all common laborers get precisely the same pay, regardless of department or place of employment. Earnings of each occupational group vary from plant to plant and often within the same department of the same plant. It is true, nevertheless, that an employee's occupation tends to restrict his earnings within fairly well-defined limits.

Broadly speaking, the highest hourly earnings in the iron and steel industry are paid to rollers in the rolling mills. For this occupation hourly earnings in April 1938 ranged from an average of \$1.620 in sheared-plate mills to \$2.927 in strip mills. Other occupational groups with high hourly earnings were blowers in the blast furnaces, melters and pourers in steel works, and heaters in rolling mills. All of these are highly skilled occupations and in most cases averaged well above \$1 an hour.

At the bottom of the scale, in terms of hourly earnings, are the workers engaged on the heavy manual jobs. These are for the most part common laborers and helpers. Comparatively little skill is required on these jobs, and the earnings of the overwhelming majority of these employees were restricted to the 10-cent range of 60 and under 70 cents an hour in April 1938. Even on these jobs, where brawn rather than skill is the primary requirement, general averages of less than 60 cents an hour were reported for only two of the occupational groups. The exceptions were hookers in rod mills, who averaged 58.1 cents, and door operators in open-hearth furnaces, who averaged 55.8 cents.

Occupation likewise sets a rigid outside limit on weekly earnings. Certain of the highly skilled employees, such as rollers in strip mills,

¹ Prepared by Victor S. Baril and H. O. Rogers, assisted by Abner C. Lakenan, of the Bureau's Division of Wage and Hour Statistics.

Additional information on earnings in the iron and steel industry in 1938 will be found in the August issue of the Monthly Labor Review.

averaged as much as \$100 a week. Weekly pay envelopes of this amount were by no means typical, however, even among the highly skilled employees. In other departments the weekly earnings of the higher-paid occupational groups ranged from \$50 to \$75, and a very substantial majority of skilled groups averaged less than \$40 a week.

A step below the skilled groups were the helpers and attendants whose weekly earnings for the most part ranged from about \$20 to \$30. For the unskilled occupational groups the range of weekly earnings was much lower. In fact, the overwhelming majority of the unskilled workers averaged less than \$20 a week in the early part of 1938, and weekly pay envelopes containing less than \$15 were reported for a considerable number. Well above this level, however, were unskilled workers employed in the butt-weld tube mills. For all unskilled employees in this department weekly earnings averaged \$25.94, while the hook boys averaged \$35.39 a week.

Taken as a whole, however, weekly earnings in the iron and steel industry in April 1938 were low, considering the relatively high level of hourly earnings, because of the reduced operating time that prevailed in virtually all branches of the industry at that time. For the industry as a whole, the weekly working time averaged only 28.5 hours in April 1938. The nearest approach to full-time operation at the time of the survey was 34.3 hours, the average for the rod mills. At the other extreme, an average workweek of only 22.3 hours was reported for the employees of the Bessemer converters.

Blast Furnaces

The relatively low wage level of wage earners employed by the blast furnaces was due primarily to the comparatively small segment of the labor force found in the high-wage brackets. Top wages in this branch of the industry were paid to blowers, who, averaged \$1.194 an hour in April 1938. This group, however, accounted for only a small fraction of the total wage earners. Earnings of other occupational groups lagged far behind. Indeed, the average for the next highest-paid group—blowing engineers—was 89.9 cents, or 29.5 cents less. The lowest earnings among the skilled employees were reported for keepers, who averaged 71.6 cents. This was below the average of the majority of semiskilled employees in other branches of the industry.

Another factor that tends to depress the general wage level of the blast-furnace employees is that the majority of the semiskilled workers were not in the intermediate wage classes but were in classes that in other divisions of the industry closely correspond with those of unskilled workers. Thus, all except two of the important semiskilled occupational groups for which data are shown averaged less than 70 cents an hour. The exceptions were stove tenders who averaged 73.5

cents and skip operators who averaged 71.2 cents. Keepers' helpers, numerically the most important of the semiskilled occupations, averaged only 64.0 cents. This was the lowest average reported for any of the semiskilled group and was likewise below the averages reported for two of the important unskilled occupations.

For the unskilled occupational groups the range of hourly earnings did not differ greatly from that of corresponding groups in other branches of the industry. The general average for the unskilled workers was 64.0 cents an hour, only 4 cents less than the average for all semiskilled employees. Among the unskilled occupations the highest average—68.8 cents—is shown for cindermen (at dump) and the lowest average—62.1 cents—for larrymen's helpers.

TABLE 1.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Wage Earners in Blast Furnaces, by Occupation, Skill, and Region, April 1938

Skill and occupational group	United States				Northern region			
	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	2, 733	\$0. 720	30. 4	\$21. 89	2, 262	\$0. 747	29. 2	\$21. 77
Skilled.....	594	. 894	32. 8	29. 30	506	. 920	31. 8	29. 26
Blowers.....	115	1. 194	40. 0	47. 76	94	1. 207	39. 7	47. 90
Blowing engineers.....	95	. 899	34. 1	30. 63	83	. 915	33. 4	30. 58
Blowing engineers' assistants.....	75	. 750	27. 8	20. 53	66	. 761	26. 1	19. 89
Keepers.....	194	. 716	29. 4	21. 01	157	. 766	27. 9	21. 34
Ore-bridge operators.....	95	. 888	32. 4	28. 79	89	. 895	31. 9	28. 59
Other skilled workers.....	20	. 828	37. 9	31. 39	17	. 853	38. 5	32. 79
Semiskilled.....	1, 407	. 680	29. 6	20. 15	1, 136	. 715	28. 0	20. 06
Keepers' helpers.....	504	. 640	27. 4	17. 55	409	. 677	25. 6	17. 31
Larrymen.....	175	. 693	29. 9	20. 70	130	. 748	27. 8	20. 83
Pig-machine men.....	262	. 668	30. 0	20. 06	223	. 701	28. 6	20. 02
Skip operators.....	146	. 712	30. 8	21. 93	110	. 762	29. 1	22. 18
Stove tenders.....	160	. 735	32. 8	24. 15	120	. 763	31. 3	23. 91
Transfer-car operators.....	74	. 695	32. 4	22. 50	70	. 709	32. 1	22. 74
Other semiskilled workers.....	86	. 725	30. 5	22. 11	74	. 737	29. 9	22. 07
Unskilled.....	732	. 640	30. 1	19. 23	620	. 648	29. 0	18. 80
Cindermen (at dump).....	49	. 688	31. 1	21. 39	47	. 677	31. 4	21. 26
Larrymen's helpers.....	91	. 621	32. 4	20. 15	69	. 660	31. 4	20. 75
Stockers.....	394	. 644	28. 6	18. 44	355	. 634	27. 7	17. 55
Other unskilled workers.....	198	. 628	31. 6	19. 84	149	. 662	30. 4	20. 09

The actual working time of all wage earners employed by the blast furnaces averaged 30.4 hours a week in April 1938. A somewhat longer workweek was reported for the skilled employees than for the other groups. Against an average of 32.8 hours for the skilled, the semiskilled employees averaged 29.6 hours and the unskilled 30.1 hours.

The higher average of the skilled group was due largely to the longer hours of the blowers, who averaged 40 hours. The weekly hours of the blowing engineers and the miscellaneous skilled workers were likewise somewhat above the average for the branch as a whole. Between other occupational groups there were no marked variations

in working time, the averages ranging from 27.4 hours for keepers' helpers to 32.8 hours for stove tenders.

Weekly earnings of workers employed by the blast furnaces reflect the slack operating time prevailing when the survey was made. The average for all employees was \$21.89 a week. As with hourly earnings, however, weekly earnings varied conspicuously between the principal occupational groups. Among the skilled occupations, for example, weekly earnings ranged from \$20.53 for blowing engineers' assistants to \$47.76 for blowers. All of the semiskilled occupations averaged less than \$25 a week, the highest average—\$24.15—being reported for stove tenders and the lowest—\$17.55—for keepers' helpers.

Steel Works

At steel works the level of hourly earnings is considerably above that prevailing at blast furnaces. This is to a considerable extent due to the large proportion of skilled workers employed. In each of the principal divisions skilled employees account for more than two-fifths of the total labor force. Moreover, a rather substantial segment of these employees falls within the high-wage brackets. Even among the semiskilled and unskilled employees, hourly earnings tend to be at a somewhat higher level than for corresponding classes at the blast furnaces.

Highest wages in the steel-works branch of the industry were paid to melters. At open-hearth furnaces these employees averaged \$1.895 an hour and at electric furnaces the average was \$1.468. Other skilled workers with high averages were melters' first helpers, steel pourers, vessel men, and stopper setters. All of these occupational groups averaged more than \$1 an hour. The lowest paid of the skilled occupational classes was that of molders in electric furnaces, who showed an average of 75.2 cents.

The average hourly earnings of the semiskilled workers ranged from 69.3 cents for miscellaneous semiskilled at electric furnaces to \$1.069 an hour for melters' second helpers at open-hearth furnaces. Most of the semiskilled groups, however, averaged from 70 to 90 cents an hour.

A somewhat lower range of wages prevailed for the unskilled employees. Only two of the unskilled occupational classes averaged over 80 cents an hour. These were stockers in Bessemer converter plants, with an average of 84.1 cents, and melters' third helpers in open-hearth furnaces, with an average 80.2 cents. With a single exception, however, all of the unskilled groups averaged above 60 cents. The lowest average—55.8 cents—is shown for door operators at open-hearth furnaces. Not only was this the lowest occupational average for the steel-works employees, but it was the lowest for the entire industry.

TABLE 2.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Wage Earners in Steel Works, by Occupation and Skill, April 1938

BESSEMER CONVERTERS

Skill and occupational group	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	298	\$0.934	22.3	\$20.79
Skilled.....	120	1.090	23.2	25.32
Blowing engineers.....	9	.885	27.1	23.97
Ingot strippers.....	12	.881	19.9	17.54
Mixermen.....	16	.917	34.2	31.34
Steel pourers.....	12	1.334	23.9	31.82
Stopper setters.....	13	1.125	19.3	21.70
Vesselmen.....	14	1.333	23.2	30.87
Other skilled workers.....	44	1.133	20.4	23.05
Semiskilled.....	39	.961	22.5	21.60
Vesselmen's helpers.....	17	1.062	23.2	24.69
Other semiskilled workers.....	22	.877	21.9	19.22
Unskilled.....	139	.780	21.4	16.66
Cinder pitmen.....	51	.718	21.2	15.23
Stockers.....	56	.841	20.3	17.10
Other unskilled workers.....	32	.776	23.4	18.18

OPEN-HEARTH FURNACES

Skill and occupational group	United States				Northern region			
	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	4,905	\$0.979	26.3	\$25.72	4,370	\$0.979	24.8	\$24.25
Skilled.....	2,101	1.154	28.0	32.28	1,857	1.152	26.4	30.46
Charging - floor crane men.....	184	.912	24.4	22.27	175	.901	23.6	21.27
Charging - machine operators.....	213	.997	28.8	28.73	191	.993	27.6	27.40
Ingot strippers.....	133	.886	27.2	24.12	110	.892	24.9	22.15
Ladle crane men.....	263	.968	28.1	27.16	234	.958	26.7	25.58
Melters.....	110	1.895	39.1	74.04	91	1.950	38.1	74.26
Melters' helpers, first.....	684	1.447	26.0	37.69	612	1.442	24.5	35.28
Steel pourers.....	146	1.038	30.7	31.83	120	1.048	28.9	30.28
Stock crane men.....	226	.815	27.9	22.76	197	.803	26.4	21.18
Other skilled workers.....	142	.841	29.6	24.89	127	.839	28.4	23.80
Semiskilled.....	1,308	.935	26.0	24.28	1,147	.935	24.3	22.70
Melters' helpers, second.....	723	1.069	24.8	26.47	639	1.062	23.0	24.38
Nozzle setters.....	113	.835	27.1	22.63	93	.860	25.4	21.81
Stopper setters.....	99	.967	28.4	27.49	88	.999	27.3	27.24
Other semi-skilled workers.....	373	.720	27.3	19.68	327	.717	25.7	18.44
Unskilled.....	1,556	.745	24.3	18.07	1,366	.746	22.9	17.11
Door operators.....	124	.558	18.6	10.36	112	.573	16.3	9.37
Melters' helpers, third.....	737	.802	24.7	19.80	662	.783	23.8	18.60
Mold cappers.....	130	.774	24.2	18.73	125	.779	24.1	18.75
Stockers.....	523	.693	24.9	17.25	426	.712	22.8	16.24
Other unskilled workers.....	42	.722	25.7	18.57	41	.725	25.4	18.39

TABLE 2.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Wage Earners in Steel Works, by Occupation and Skill, April 1938—Continued

ELECTRIC FURNACES

Skill and occupational group	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	533	\$0.860	30.7	\$26.36
Skilled.....	249	1.006	31.9	32.15
Ladle cranemen.....	35	.924	25.8	24.83
Ladlemen (steel pourers).....	35	.919	29.3	26.93
Melters.....	34	1.468	40.4	59.32
Melters' helpers, first.....	71	1.015	33.7	34.15
Molders.....	50	.752	33.6	25.26
Other skilled workers.....	24	.898	24.4	21.86
Semiskilled.....	140	.772	29.8	23.03
Ladlemen's helpers.....	22	.804	30.0	24.09
Melters' helpers, second.....	52	.834	29.8	24.81
Melters' helpers, third.....	37	.735	24.7	18.19
Other semiskilled workers.....	29	.693	30.3	25.20
Unskilled.....	144	.670	29.2	19.58
Chargers, hand.....	21	.705	35.8	25.27
Stockers.....	111	.665	27.6	18.37
Other unskilled workers.....	12	.641	32.5	20.80

A large proportion of the steel-works employees were working only three or four days a week in April 1938. At Bessemer converters, the average working time of all wage earners was but 22.3 hours a week. For the other divisions the showing was somewhat more favorable, the averages being 26.3 hours at open-hearth furnaces and 30.7 hours at electric furnaces. As at blast furnaces, the workweek of the skilled employees tended to be somewhat longer than for the other occupational groups. Even among the skilled workers, however, comparatively few had full-time employment at the time of the survey.

With relatively little work available, the weekly earnings of the steel-works employees were comparatively low. In fact, with the exception of melters, who averaged \$74.04 a week at open-hearth furnaces and \$59.32 at the electric furnaces, none of the occupational groups in the steel-works branch of the industry averaged as much as \$40. The weekly averages of the remaining occupational classes ranged from \$10.36 to \$37.69. Virtually all of the unskilled groups averaged less than \$20 and almost all of the semiskilled fell below the level of \$30.

Rolling Mills

Hourly earnings of rolling-mill employees cover an unusually wide range. Some of the employees rank with the highest-paid wage earners in the country. Earnings of others, by contrast, are low in comparison with the general wage level prevailing in the iron and steel industry.

Broadly speaking, the highest hourly earnings are found in the strip and tin-plate mills. In both of these divisions there are a number of occupational groups in the upper-wage classes. As previously indi-

cated, rollers in strip mills averaged as high as \$2.927 an hour. In addition to this occupation, heaters averaged \$1.752, while the respective averages of assistant rollers and cold reduction rollers were \$1.493 and \$1.291. Even among the semiskilled strip-mill workers there were occupations with averages above \$1 an hour. This was true of heaters' helpers who averaged \$1.161 and shear and leveler operators who averaged \$1.047. Moreover, none of the unskilled occupational groups in strip mills averaged less than 75 cents an hour. In the tin-plate mills there was no occupation averaging as much as rollers in the strip mills, but the general level of wages was relatively high for each of the principal groups of wage earners.

TABLE 3.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Wage Earners in Rolling Mills, by Skill and Occupational Group, April 1938

PUDDLING MILLS

Skill and occupational group	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	296	\$0. 798	30. 8	\$24. 57
Skilled.....	172	. 895	32. 3	28. 91
Puddlers.....	48	. 952	31. 8	30. 28
Puddlers, level-handed.....	101	. 875	33. 3	29. 11
Other skilled workers.....	23	. 864	29. 1	25. 16
Semiskilled.....	79	. 651	28. 6	18. 66
Puddlers' helpers.....	51	. 654	29. 8	19. 45
Other semiskilled workers.....	28	. 647	26. 6	17. 23
Unskilled.....	45	. 639	28. 7	18. 35
Stockers.....	19	. 623	30. 3	18. 90
Other unskilled workers.....	26	. 651	27. 6	17. 95

BILLET MILLS

All occupations.....	619	\$0. 883	26. 4	\$23. 26
Skilled.....	212	1. 128	24. 8	27. 98
Guide setters.....	14	1. 041	26. 4	27. 47
Inspectors, product.....	50	. 805	28. 0	22. 50
Roll engineers, electric.....	7	. 750	21. 7	16. 29
Roll engineers, steam.....	23	. 872	12. 3	10. 72
Rollers.....	31	1. 745	26. 1	45. 46
Rollers, assistant.....	11	1. 124	16. 6	18. 62
Shearmen.....	30	. 930	28. 1	26. 15
Tilting-table operators.....	27	1. 186	24. 7	29. 35
Other skilled workers.....	19	1. 568	29. 2	45. 79
Semiskilled.....	302	. 788	28. 3	22. 31
Chippers and grinders.....	200	. 757	29. 5	22. 29
Hotbed men.....	15	. 803	24. 6	19. 74
Transfer-table operators.....	10	. 799	20. 1	16. 06
Other semiskilled workers.....	77	. 871	27. 1	23. 65
Unskilled.....	105	. 691	23. 9	16. 49
Shearmen's helpers.....	20	. 812	19. 9	16. 17
Other unskilled workers.....	85	. 668	24. 8	16. 57

TABLE 3.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Wage Earners in Rolling Mills, by Skill and Occupational Group, April 1938—Continued

BLOOMING MILLS

Skill and occupational group	United States				Northern region			
	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	1,926	\$0.915	26.7	\$24.39	1,764	\$0.924	25.9	\$23.94
Skilled	602	1.198	28.4	34.01	549	1.212	27.6	33.45
Heaters.....	106	1.377	32.4	44.55	95	1.375	31.6	43.44
Manipulators.....	69	1.280	25.4	32.57	64	1.286	24.7	31.78
Pit cranemen.....	162	1.053	29.3	30.84	147	1.081	28.3	30.61
Roll engineers, electric.....	24	.991	30.0	29.75	22	1.026	29.1	29.85
Roll engineers, steam.....	30	1.339	25.6	34.21	28	1.328	25.2	33.50
Rollers.....	65	1.772	27.8	49.27	61	1.768	27.4	48.52
Shearmen.....	85	.996	25.3	25.18	76	1.005	24.2	24.35
Other skilled workers.....	61	.833	28.1	23.39	56	.841	27.6	23.20
Semiskilled	866	.802	26.7	21.42	804	.803	26.1	20.99
Bottom makers.....	83	.953	25.8	24.55	77	.965	25.0	24.10
Chippers and grinders.....	465	.760	27.2	20.69	456	.759	27.1	20.55
Gas makers.....	36	.673	35.4	23.81	34	.682	35.7	24.32
Heaters' helpers.....	61	1.063	29.1	30.89	51	1.062	27.2	28.59
Shearmen's helpers.....	103	.766	21.6	16.56	94	.784	20.5	16.06
Transfer-table operators.....	40	.835	26.4	22.00	26	1.008	23.0	23.23
Other semiskilled workers.....	78	.780	25.7	20.08	66	.778	24.4	18.99
Unskilled	458	.714	24.3	17.34	411	.732	23.2	17.00
Bottom makers' helpers.....	99	.789	25.0	19.68	89	.819	23.6	19.32
Buggy operators.....	45	.822	24.0	19.70	40	.797	22.0	17.55
Cover operators.....	44	.672	25.2	16.91	41	.681	24.1	16.40
Other unskilled workers.....	270	.674	24.0	16.16	241	.698	23.2	16.16

PLATE MILLS

Skill and occupational group	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	1,687	\$0.886	24.4	\$21.62
Skilled	613	1.052	25.8	27.15
Charging-crane and charging-machine operators.....	80	.917	26.9	24.69
Heaters.....	65	1.266	32.3	40.89
Inspectors, product.....	80	.830	23.6	19.62
Layers-out and markers.....	98	.915	23.5	21.48
Roll engineers, electric.....	16	.966	20.2	19.49
Roll engineers, steam.....	13	.834	27.8	23.21
Rollers, sheared-plate.....	30	1.620	33.2	53.83
Rollers, universal-plate.....	6	1.652	26.5	43.84
Screwmen, sheared-plate.....	34	1.282	27.1	34.71
Shearmen.....	125	1.020	23.7	24.14
Other skilled workers.....	66	.997	25.1	24.97
Semiskilled	647	.799	23.6	18.85
Cold-roll operators.....	46	.812	22.8	18.55
Heaters' helpers.....	47	.908	24.6	22.35
Hookmen, sheared-plate.....	90	.903	25.7	23.21
Layers-out and markers' assistants.....	76	.779	21.9	17.06
Transfer-table operators.....	47	.767	22.3	17.09
Other semiskilled workers.....	341	.761	23.5	17.90
Unskilled	427	.758	23.6	17.88
Shearmen's helpers.....	350	.784	22.6	17.70
Other unskilled workers.....	77	.663	28.2	18.69

TABLE 3.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Wage Earners in Rolling Mills, by Skill and Occupational Group, April 1938—Continued

RAIL MILLS

Skill and occupational group	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	703	\$0.847	28.2	\$23.90
Skilled.....	185	1.046	29.9	31.26
Charging-machine operators.....	8	.959	25.1	24.04
Guide setters.....	8	.929	35.6	33.12
Inspectors, rails.....	48	.771	29.5	22.74
Roll engineers, electric and steam.....	12	.805	29.0	23.47
Rollers.....	7	1.711	37.9	64.77
Straighteners, gag press.....	49	1.369	28.8	39.42
Table levermen.....	29	.876	29.8	26.14
Other skilled workers.....	24	1.098	30.8	33.80
Semiskilled.....	332	.822	27.6	22.68
Chippers.....	79	.867	22.4	19.41
Drillers and punchers.....	68	.885	30.5	26.95
Hot sawmen.....	7	.817	30.3	24.76
Straighteners' helpers.....	52	.851	28.0	23.84
Other semiskilled workers.....	126	.754	28.9	21.83
Unskilled.....	186	.677	27.7	18.75
Hotbed men.....	88	.673	29.2	19.62
Other unskilled workers.....	98	.682	25.4	17.97

STRUCTURAL MILLS

All occupations.....	652	\$0.868	29.2	\$25.39
Skilled.....	161	1.108	30.6	33.94
Guide setters.....	11	1.013	33.8	34.27
Heaters.....	12	1.306	38.1	49.72
Inspectors, product.....	30	.849	23.6	20.06
Roll engineers, electric.....	16	.910	25.2	22.90
Rollers.....	13	1.717	41.7	71.57
Rollers, assistant.....	13	1.255	36.3	45.58
Straighteners.....	31	.907	29.9	27.15
Tilting-table operators.....	18	.952	29.9	28.43
Other skilled workers.....	17	1.267	30.0	38.01
Semiskilled.....	250	.860	31.3	26.92
Chargers.....	16	.979	32.9	32.21
Chippers.....	29	.741	32.5	24.11
Heaters' helpers.....	20	.924	31.7	29.26
Shearmen.....	15	.932	35.6	33.12
Straighteners' helpers.....	23	.756	29.2	22.09
Transfer-table operators.....	45	.971	32.6	31.60
Other semiskilled workers.....	102	.820	29.9	24.53
Unskilled.....	241	.691	26.2	18.11
Hotbed men.....	44	.687	27.3	18.72
Other unskilled workers.....	197	.693	26.0	17.97

TABLE 3.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Wage Earners in Rolling Mills, by Skill and Occupational Group, April 1938—Continued

BAR MILLS

Skill and occupational group	United States				Northern region			
	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	3, 235	\$0. 827	29. 3	\$24. 20	2, 722	\$0. 825	28. 7	\$23. 69
Skilled	1, 286	. 993	30. 5	30. 28	1, 098	. 975	30. 0	29. 21
Catchers.....	89	. 877	29. 3	25. 69	71	. 882	28. 3	24. 93
Finishers.....	131	1. 049	30. 6	32. 12	111	1. 034	30. 2	31. 27
Heaters.....	141	1. 105	31. 4	34. 69	121	1. 068	30. 9	33. 01
Roll engineers, electric.....	19	. 730	31. 2	22. 79	14	. 745	29. 2	21. 78
Roll engineers, steam.....	17	. 628	31. 6	19. 80	17	. 628	31. 6	19. 80
Rollers.....	90	1. 742	35. 0	60. 90	76	1. 714	35. 3	60. 42
Roughers.....	213	. 992	29. 3	29. 06	169	. 943	28. 8	27. 14
Stranders.....	217	. 868	31. 3	27. 16	187	. 851	30. 8	26. 25
Other skilled workers.....	369	. 850	29. 4	25. 00	332	. 849	28. 8	24. 42
Semiskilled	895	. 775	28. 2	21. 89	776	. 784	27. 5	21. 59
Chargers and chargers' helpers.....	121	. 783	28. 3	22. 19	101	. 785	28. 5	22. 42
Heaters' helpers.....	163	. 817	27. 5	22. 43	143	. 801	26. 6	21. 32
Hook-ups.....	75	. 742	28. 4	21. 05	38	. 773	25. 0	19. 28
Shearmen.....	177	. 765	30. 7	23. 47	162	. 765	30. 2	23. 08
Transfer-table operators.....	104	. 818	25. 3	20. 69	97	. 832	24. 6	20. 46
Other semiskilled workers.....	255	. 747	28. 1	21. 03	235	. 770	27. 5	21. 19
Unskilled	1, 054	. 654	28. 6	18. 74	898	. 665	28. 2	18. 76
Bundlers.....	140	. 696	23. 8	16. 56	139	. 698	23. 7	16. 59
Drag-downs.....	90	. 660	30. 2	19. 92	68	. 699	29. 7	20. 76
Hotbed men.....	243	. 649	27. 6	17. 88	189	. 646	26. 8	17. 32
Shearmen's helpers.....	220	. 674	30. 6	20. 62	180	. 691	30. 4	21. 03
Stockers.....	119	. 649	28. 4	18. 45	100	. 667	28. 3	18. 90
Other unskilled workers.....	242	. 622	30. 3	18. 86	222	. 629	29. 9	18. 83

Skill and occupational group	Western region				Southern region			
	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	207	\$1. 084	37. 0	\$40. 09	256	\$0. 585	28. 8	\$16. 87
Skilled	95	1. 339	37. 1	49. 69	93	. 776	29. 8	23. 17
Catchers.....	8	. 982	41. 0	40. 25	10	. 713	27. 3	19. 50
Finishers.....	11	1. 347	39. 7	53. 40	9	. 685	24. 2	16. 58
Heaters.....	9	1. 733	37. 7	65. 33	11	. 890	31. 5	28. 08
Roll engineers, electric.....	2	(1)	(1)	(1)	3	(1)	(1)	(1)
Roll engineers, steam.....	5	2. 439	37. 9	92. 45	9	1. 539	30. 8	47. 42
Rollers.....	16	1. 806	35. 1	63. 43	28	. 724	29. 1	21. 07
Roughers.....	16	1. 302	34. 6	45. 08	14	. 557	33. 7	18. 76
Stranders.....	28	. 927	36. 9	34. 17	9	. 594	30. 4	18. 06
Other skilled workers.....	53	. 936	38. 0	35. 52	66	. 508	28. 5	14. 45
Semiskilled	8	. 926	35. 0	32. 39	12	. 609	22. 0	13. 40
Chargers and chargers' helpers.....	11	1. 111	36. 4	40. 42	9	. 600	30. 0	18. 01
Heaters' helpers.....	15	. 883	39. 1	34. 53	22	. 553	27. 0	14. 93
Hook-ups.....	7	1. 097	39. 6	43. 47	8	. 420	33. 0	13. 87
Shearmen.....	4	(1)	(1)	(1)	3	(1)	(1)	(1)
Transfer-table operators.....	8	. 732	38. 7	28. 35	12	. 388	33. 3	12. 90
Other semiskilled workers.....	59	. 800	35. 9	28. 74	97	. 444	28. 1	12. 48
Unskilled	2	(1)	(1)	(1)	1	(1)	(1)	(1)
Bundlers.....	22	. 871	33. 9	29. 54	20	. 457	30. 9	14. 12
Drag-downs.....	32	. 477	27. 6	13. 17	22	. 447	25. 9	11. 57
Hotbed men.....	18	. 733	37. 5	27. 53	12	. 431	27. 0	11. 63
Shearmen's helpers.....	7	. 731	32. 5	23. 72	10	. 330	30. 0	9. 90
Stockers.....	10	. 729	39. 2	28. 56				
Other unskilled workers.....								

¹ Number of workers not sufficient to permit the presentation of an average.

TABLE 3.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Wage Earners in Rolling Mills, by Skill and Occupational Group, April 1938—Continued

ROD MILLS

Skill and occupational group	United States				Northern region			
	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	1, 022	\$0. 882	34. 3	\$30. 21	797	\$0. 881	33. 1	\$29. 14
Skilled.....	353	1. 144	35. 8	40. 95	270	1. 084	34. 8	37. 75
Catchers.....	94	1. 110	36. 0	39. 92	51	. 996	35. 0	34. 88
Finishers.....	36	1. 411	37. 0	52. 16	26	1. 380	34. 9	48. 10
Heaters.....	38	1. 182	35. 7	42. 18	30	1. 206	34. 4	41. 44
Roll engineers, electric.....	14	. 813	38. 3	31. 11	9	. 801	39. 1	31. 27
Rollers.....	29	1. 825	39. 3	71. 64	25	1. 740	38. 4	67. 09
Rollers, assistant.....	19	1. 617	39. 5	53. 86	12	1. 522	36. 9	56. 13
Roughers.....	32	1. 066	33. 2	35. 40	27	1. 076	32. 3	34. 77
Other skilled workers.....	91	. 768	33. 8	25. 98	90	. 769	33. 9	26. 10
Semiskilled.....	378	. 764	33. 6	25. 72	281	. 808	32. 2	25. 97
Chargers and chargers' helpers.....	67	. 730	34. 4	25. 09	54	. 784	32. 6	25. 56
Conveyor men.....	85	. 677	31. 2	21. 13	69	. 691	30. 1	20. 77
Heaters' helpers.....	28	. 842	35. 0	29. 48	24	. 888	33. 7	29. 89
Hookers (rolls).....	32	. 581	35. 8	20. 83	4	(1)	(1)	(1)
Reelers.....	52	. 787	32. 8	25. 84	46	. 831	31. 8	26. 39
Shearmen.....	29	. 880	33. 2	29. 25	27	. 896	33. 0	29. 60
Other semiskilled workers.....	85	. 864	34. 9	30. 13	57	. 872	34. 2	29. 83
Unskilled.....	291	. 693	33. 2	23. 01	246	. 723	32. 2	23. 20
Bundlers.....	113	. 705	30. 4	23. 22	107	. 779	30. 3	23. 57
Stockers.....	37	. 692	33. 5	23. 14	31	. 704	33. 7	23. 69
Other unskilled workers.....	141	. 645	35. 4	22. 81	108	. 679	33. 8	22. 93

WIRE MILLS

All occupations.....	3, 192	\$0. 845	28. 7	\$24. 26	2, 573	\$0. 872	28. 2	\$24. 62
Skilled.....	1, 889	. 925	27. 1	25. 08	1, 527	. 951	26. 5	25. 18
Die reamers.....	64	. 826	30. 7	25. 39	55	. 832	30. 1	25. 02
Inspectors, product.....	57	. 811	31. 9	25. 91	57	. 811	31. 9	25. 91
Testers and gagers.....	69	. 710	31. 7	22. 52	60	. 714	31. 0	22. 12
Wipers.....	63	. 841	32. 5	27. 34	38	. 825	33. 1	27. 33
Wire drawers.....	1, 493	. 960	26. 3	25. 28	1, 183	. 999	25. 6	25. 64
Other skilled workers.....	143	. 837	27. 2	22. 75	134	. 836	27. 0	22. 57
Semiskilled.....	776	. 787	31. 6	24. 87	640	. 800	31. 7	25. 36
Block tenders.....	192	. 813	32. 1	26. 08	164	. 811	32. 1	26. 06
Firemen, annealing and galvanizing, furnaces.....	70	. 789	35. 5	28. 03	62	. 814	35. 4	28. 87
Reelers.....	288	. 799	31. 7	25. 36	236	. 800	32. 3	25. 82
Straightener and cutter operators.....	33	. 775	26. 3	20. 35	30	. 819	25. 7	21. 02
Truckers, power.....	139	. 766	31. 1	23. 80	109	. 796	30. 0	23. 91
Other semiskilled workers.....	54	. 670	28. 9	19. 33	39	. 715	30. 1	21. 52
Unskilled.....	527	. 678	30. 1	20. 43	406	. 727	29. 3	21. 30
Truckers, hand.....	132	. 630	29. 4	18. 53	93	. 682	29. 9	20. 40
Wire bundlers and packers.....	183	. 691	30. 1	20. 82	151	. 746	28. 8	21. 46
Other unskilled workers.....	212	. 696	30. 6	21. 28	162	. 737	29. 4	21. 66

SKELP MILLS

Skill and occupational group	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	309	\$0. 834	30. 3	\$25. 22
Skilled.....	95	1. 063	33. 8	35. 94
Heaters.....	13	1. 586	32. 6	51. 65
Rollers.....	8	1. 921	37. 1	71. 34
Rollers, assistant.....	11	1. 269	36. 8	46. 06
Roughers.....	10	. 780	32. 5	25. 35
Other skilled workers.....	53	. 707	33. 3	26. 52
Semiskilled.....	73	. 733	30. 0	22. 01
Heaters' helpers.....	24	. 815	25. 7	20. 92
Shearmen.....	8	. 711	30. 3	21. 57
Other semiskilled workers.....	41	. 699	32. 5	22. 72
Unskilled.....	141	. 703	28. 0	19. 66
Hotbed men.....	33	. 718	34. 6	24. 82
Shearmen's helpers.....	21	. 636	27. 0	17. 16
Other unskilled workers.....	87	. 712	25. 7	18. 31

1 Number of workers not sufficient to permit presentation of an average.

TABLE 3.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Wage Earners in Rolling Mills, by Skill and Occupational Group, April 1938—Continued

LAP-WELD TUBE MILLS

Skill and occupational group	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	1,387	\$0.818	30.9	\$25.30
Skilled	289	.934	31.6	29.52
Benders.....	24	.979	34.2	33.47
Die setters.....	20	.881	39.3	34.63
Inspectors, product.....	163	.823	29.1	23.91
Roll setters.....	21	1.003	33.0	33.08
Welders.....	40	1.341	32.4	43.46
Other skilled workers.....	21	.883	38.1	33.63
Semiskilled	710	.816	31.2	25.44
Ballers.....	28	.766	27.9	21.37
Bar pullers.....	22	.791	29.7	23.53
Blister men.....	30	.782	28.3	22.13
Charging-machine operators (bending furnace).....	59	.816	29.6	24.12
Coupling reamers and tappers.....	15	.736	33.9	24.96
Cutters and threaders.....	225	.852	31.7	26.97
Pipe testers, hydraulic.....	40	.776	31.4	24.37
Saw operators.....	20	.835	34.3	28.64
Straightener operators.....	54	.786	33.2	26.12
Takers-off.....	22	.796	28.6	22.74
Turn-downs.....	37	1.002	33.4	33.47
Other semiskilled workers.....	158	.765	30.8	23.53
Unskilled	388	.730	30.0	21.90
Benders' helpers.....	15	.864	28.9	24.96
Buggymen.....	28	.820	32.8	26.92
Pipe testers' helpers, hydraulic.....	24	.746	35.3	26.34
Pit hands (welding furnace).....	98	.759	27.2	20.62
Other unskilled workers.....	223	.696	30.4	21.15

BUTT-WELD TUBE MILLS

All occupations.....	1,652	\$0.839	34.2	\$28.67
Skilled	284	1.031	34.6	35.65
Die setters.....	20	.835	36.4	30.41
Inspectors, product.....	169	.786	32.7	25.71
Roll setters.....	27	1.086	39.1	42.43
Welders.....	63	1.668	36.6	61.02
Other skilled workers.....	5	(¹)	(¹)	(¹)
Semiskilled	940	.811	34.3	27.80
Bench movers.....	36	.870	35.8	31.10
Bundlers and helpers.....	113	.732	32.6	23.84
Chargers, hand.....	18	.840	32.3	27.12
Charging-machine operators.....	49	.896	35.2	31.58
Coupling reamers and tappers.....	36	.758	32.0	24.25
Cutters and threaders.....	148	.809	35.7	28.86
Galvanizers.....	24	.880	35.6	31.31
Heaters, skelp.....	20	.664	34.4	22.85
Pickers.....	56	1.066	36.5	38.92
Pipe picklers.....	10	.954	33.3	31.78
Pipe testers, hydraulic.....	92	.718	32.9	23.66
Saw operators.....	82	.825	32.5	26.82
Size rollers.....	40	.897	38.5	34.56
Skelp clippers and helpers.....	58	.886	35.4	31.39
Straighteners, hand.....	48	.704	33.5	23.56
Straighteners, machine.....	49	.765	36.7	28.05
Other semiskilled workers.....	91	.747	31.7	23.71
Unskilled	428	.772	33.6	25.94
Bell cleaners.....	47	.795	34.3	27.24
Hook boys.....	34	.920	38.5	35.39
Rackmen.....	54	.765	33.5	25.60
Tongsmen.....	65	.835	35.5	29.61
Other unskilled workers.....	228	.722	32.3	23.29

¹ Number of workers not sufficient to permit presentation of an average.

TABLE 3.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Wage Earners in Rolling Mills, by Skill and Occupational Group, April 1938—Continued

SEAMLESS TUBE MILLS

Skill and occupational group	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations	1,553	\$0.854	32.6	\$27.85
Skilled	443	.903	32.8	29.62
Heaters	16	1.291	29.3	37.79
Inspectors, product	275	.807	33.7	27.16
Piercing operators	24	1.232	28.5	35.14
Rollers, hot-mill	28	1.130	30.8	34.83
Other skilled workers	100	.991	32.6	32.29
Semiskilled	850	.876	33.3	29.12
Benchmen, cold drawing	50	.683	27.7	18.94
Cut-off operators	131	.794	33.2	26.41
Pipe picklers	10	.787	33.1	26.07
Pipe testers, hydraulic	34	.714	34.5	24.64
Pointers, cold drawing	18	.821	29.0	23.85
Straighteners, hand	25	.815	30.6	24.93
Straighteners, machine	34	.890	29.7	26.42
Other semiskilled workers	548	.924	34.2	31.66
Unskilled	260	.686	30.2	20.69
Benchmen's helpers, cold drawing	42	.658	26.9	17.69
Other unskilled workers	218	.690	30.8	21.27

SHEET- AND TIN-PLATE BAR MILLS

All occupations	466	\$0.887	28.3	\$25.14
Skilled	170	1.058	28.4	30.03
Guide setters	14	.942	27.9	26.29
Inspectors, product	38	.870	30.5	26.52
Rollers	21	1.656	31.6	52.37
Shearmen	45	.906	24.5	22.15
Other skilled workers	52	1.081	29.1	31.40
Semiskilled	226	.817	29.2	23.85
Loopers	14	.738	27.3	20.17
Transfer-table operators	25	.880	20.3	17.86
Other semiskilled workers	187	.817	30.5	24.93
Unskilled	70	.684	25.5	17.45
Shearmen's helpers	48	.713	23.0	16.41
Other unskilled workers	22	.638	30.9	19.70

STRIP MILLS

All occupations	6,091	\$0.914	25.0	\$22.86
Skilled	1,633	1.123	27.4	30.80
Cold-roll rollers (finishing)	56	.926	30.2	27.96
Gagers	38	1.228	26.4	32.39
Heaters	36	1.752	28.5	49.88
Inspectors, product	364	.848	26.4	22.41
Looper operators	47	.955	23.9	22.82
Pulpit operators	44	1.067	23.8	25.45
Roll engineers, electric	39	.986	32.3	31.84
Rollers	34	2.927	34.4	100.68
Rollers, assistant	107	1.493	24.2	36.13
Rollers, cold reduction	306	1.291	31.0	40.06
Shearmen	465	.970	25.4	24.63
Speed operators	34	1.276	25.2	32.21
Other skilled workers	63	.966	33.3	32.14

TABLE 3.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Wage Earners in Rolling Mills, by Skill and Occupational Group, April 1938—Continued

STRIP MILLS—Continued

Skill and occupational group	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
Semiskilled	3,005	\$0.849	24.8	\$21.04
Chargers and chargers' helpers.....	69	.899	23.2	20.84
Collars.....	68	.929	26.7	24.80
Cold-roll catchers (finishing).....	70	.811	23.3	18.85
Heaters' helpers.....	56	1.161	23.1	26.85
Picklers.....	87	.912	24.0	21.90
Rollers' helpers, cold reduction.....	535	.943	25.0	23.61
Rollers, levelers.....	66	.829	21.0	17.44
Shear and leveler operators.....	54	1.047	29.1	30.44
Shearmen's helpers.....	598	.798	22.4	17.84
Stitcher car operators.....	89	.966	26.9	25.96
Tractor operators.....	315	.727	26.4	19.22
Other semiskilled workers.....	998	.817	25.7	20.96
Unskilled	1,453	.778	22.7	17.69
Picklers' helpers.....	344	.829	20.8	17.22
Shear and leveler operators' helpers.....	54	.773	28.6	22.10
Sheet pilers.....	101	.844	21.6	18.21
Stitcher feeders.....	25	.787	27.2	21.38
Other unskilled workers.....	929	.755	23.1	17.45

SHEET MILLS

All occupations	7,502	\$0.903	24.1	\$21.77
Skilled	1,622	1.203	24.9	29.97
Catchers.....	151	1.163	23.8	27.64
Gagers and inspectors, product.....	238	.761	29.0	22.04
Pair heaters.....	37	1.228	25.7	31.56
Resquare shearmen.....	145	.818	28.8	23.53
Rollers, assistant, mechanical mills.....	152	1.301	21.0	27.28
Rollers, hand mills.....	76	2.182	25.0	54.46
Rollers', helpers and finishers, hand mills.....	70	1.278	24.1	30.85
Rollers, mechanical mills.....	153	1.885	21.0	39.55
Roughers.....	87	1.419	24.1	34.23
Shearmen.....	195	1.252	23.2	29.08
Sheet heaters.....	37	1.735	26.0	45.12
Other skilled workers.....	281	1.078	25.7	27.73
Semiskilled	3,524	.870	23.8	20.74
Cold-roll rollers.....	137	.865	22.7	19.67
Doublers.....	253	1.013	22.4	22.70
Galvanizers.....	84	.847	35.1	29.74
Matchers.....	522	1.013	21.3	21.53
Openers.....	384	.863	21.3	18.42
Openers, level-handed.....	164	.839	24.7	20.73
Picklers, sheet.....	70	.823	30.1	24.78
Roller and stretcher levelers.....	66	.856	24.6	21.07
Sheet heaters' helpers.....	29	1.188	27.4	32.58
Spanner men.....	64	1.184	23.4	27.74
Other semiskilled workers.....	1,751	.807	24.5	19.76
Unskilled	2,356	.737	24.0	17.66
Catchers and feeders, normalizing furnaces.....	61	.700	18.4	12.86
Chargers, pair and pack furnaces.....	373	.841	20.5	17.26
Cold-roll catchers.....	230	.736	22.7	16.68
Drag-ups.....	20	.907	24.2	21.92
Feeders, galvanizing.....	95	.750	32.2	24.14
Picklers' helpers, sheet.....	155	.716	27.0	19.32
Reelers and rack men, galvanizing.....	141	.644	28.4	18.27
Resquare shearmen's helpers.....	145	.717	23.7	17.01
Roller and stretcher levelers' helpers.....	85	.713	27.7	19.73
Shearmen's helpers.....	204	.894	21.9	19.56
Stockers.....	67	.651	25.4	16.55
Other unskilled workers.....	780	.693	24.1	16.66

TABLE 3.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Wage Earners in Rolling Mills, by Skill and Occupational Group, April 1938—Continued

TIN-PLATE MILLS

Skill and occupational group	Northern region			
	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	8,042	\$0.938	29.4	\$27.59
Skilled.....	2,978	1.085	31.6	34.27
Catchers.....	306	.987	31.0	30.65
Catchers, level-handed.....	143	.944	36.9	34.83
Gagers and inspectors.....	54	.733	34.9	25.60
Heaters.....	102	.966	33.6	32.43
Heaters, level-handed.....	492	1.049	35.7	37.38
Pair heaters.....	275	.836	36.0	30.07
Pair heaters, level-handed.....	26	.966	35.1	33.89
Resquare shear-men.....	69	.833	29.7	24.78
Rollers.....	274	1.743	32.8	57.18
Rollers, level-handed.....	126	1.113	32.2	35.89
Roughers.....	287	1.077	36.2	39.02
Shear-men.....	239	1.181	22.5	26.59
Tinners, hand.....	134	1.168	20.3	23.77
Tinners, machine.....	166	.995	30.3	28.97
Other skilled workers.....	285	1.146	24.6	28.14
Semiskilled.....	3,962	.826	28.8	23.81
Branners.....	111	.672	27.4	18.39
Cold-roll roughers.....	145	.930	32.3	30.07
Doublers, hand.....	526	.815	29.8	24.31
Heaters' helpers.....	61	.857	37.7	32.32
Openers.....	545	1.104	22.0	24.33
Screw boys.....	280	.719	33.7	24.22
Single boys.....	450	.805	30.0	24.12
Other semiskilled workers.....	1,844	.789	29.1	22.93
Unskilled.....	1,102	.901	25.7	23.12
Cold-roll catchers.....	92	.920	29.9	27.55
Picklers' helpers.....	261	1.312	26.4	34.71
Shear-men's helpers.....	103	.816	20.4	16.68
Other unskilled workers.....	646	.737	25.6	18.83

In marked contrast with the wage level prevailing in the strip and tin-plate mills, earnings in puddling mills were only slightly higher than in blast furnaces. Indeed, there was no occupational class among the puddling-mill employees that averaged as much as blowers in blast furnaces, but the general wage level of the division was raised by the fact that more than half of the wage earners employed by the puddling mills were classed as skilled. Among the skilled workers the averages ranged from 86.4 cents for the miscellaneous skilled group to 95.2 cents for puddlers. For the semiskilled and unskilled employees hourly earnings ranged from an average of 62.3 cents for stockers to 65.4 cents for puddlers' helpers.

Weekly hours of rolling-mill employees did not differ greatly from those of workers in other branches of the industry. The nearest approach to full time was reported for the employees in rod mills (34.3 hours a week). In most of the departments, however, the average was below 30 hours a week and sheet-mill employees averaged only 24.1 hours.

As in other branches, employment opportunities were on the whole somewhat more favorable for the skilled employees than for the

semiskilled and unskilled. Rollers in structural mills, for example, averaged 41.7 hours a week and virtually full-time employment was available to most of the skilled occupational classes in the rod mills.

In terms of weekly earnings, the rod mills constituted the highest-paid department of the rolling-mill branch. For all wage earners employed in mills of this type, average weekly earnings amounted to \$30.21 in April 1938. The highest average for any of the occupational classes in rod mills, however, was \$71.64 a week. This was far below the peak weekly average of \$100.68 for rollers in strip mills. The high average for the rod mills is explained by the fact that there were a number of skilled occupations with comparatively high averages. Assistant rollers, for example, averaged \$63.86 and finishers \$52.16. Moreover, the weekly earnings of all but 2 of the semiskilled occupational groups were above \$25 and none of the unskilled classes averaged less than \$20 a week.

Mechanical, Transportation, and Plant-Service Occupations

Most of the mechanical, transportation, and plant-service occupations that are common to all departments of the iron and steel industry were found in the intermediate earning classes. On the one hand, none of these workers had exceptionally high earnings comparable with those of rollers in strip mills. On the other hand, there were no unusually low earnings reported for these occupational groups.

Among the mechanical, transportation, and service employees, the highest average earnings—\$1.143 an hour—was reported for bricklayers. With a single exception, namely, roll turners, who averaged \$1.012, this was the only occupational group whose hourly earnings exceeded \$1 an hour. Most of the remaining skilled occupations earned between 80 and 90 cents an hour, although plant supervisory employees averaged 93.8 cents and machinists averaged 92.8 cents. At the bottom of the scale in terms of hourly earnings were the common laborers, numerically the most important of mechanical, transportation, and service occupations. This group averaged 60.0 cents an hour.

Very few of the mechanical, transportation, and service employees had full-time employment in April 1938. The average working time for the group as a whole was 29.7 hours a week. The range in weekly hours, however, was from 26.0 for common laborers to 36.5 for steam engineers.

Weekly earnings of the mechanical, transportation, and service employees ranged from an average of \$15.58 for common laborers to \$33.96 for bricklayers. The average for all occupations was \$22.97 a week.

TABLE 4.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Male Iron and Steel Workers in Mechanical, Transportation, and Service Work, by Occupation, Skill, and Region, April 1938

Occupation	United States				Northern region			
	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
All occupations.....	32,354	\$0.773	29.7	\$22.97	29,604	\$0.784	29.3	\$22.95
Skilled workers.....	11,352	.896	32.2	28.83	10,543	.900	31.8	28.63
Blacksmiths.....	198	.872	29.5	25.70	176	.879	29.5	25.93
Boilermakers.....	96	.894	28.4	25.42	87	.903	27.8	25.10
Bricklayers.....	302	1.143	29.7	33.96	279	1.132	29.7	33.59
Carpenters.....	192	.853	31.8	27.13	177	.870	31.2	27.16
Cranemen, miscellaneous, skilled.....	198	.898	28.6	25.66	174	.924	27.2	25.12
Electricians.....	918	.868	33.5	29.13	876	.866	33.3	28.81
Engineers, locomotive.....	447	.864	26.1	22.57	409	.868	25.1	21.78
Engineers, power, steam.....	101	.857	36.5	31.30	86	.875	36.0	31.47
Engineers, power, electric.....	149	.850	33.7	28.69	143	.854	33.4	28.54
Inspectors and repairmen, motors.....	607	.886	30.0	26.59	589	.893	29.7	26.51
Ladle liners.....	126	.844	29.9	25.22	121	.853	29.7	25.30
Machinists.....	1,256	.928	31.0	28.72	1,196	.929	30.7	28.53
Millwrights.....	1,333	.856	32.0	27.40	1,267	.858	31.6	27.13
Pipe fitters.....	543	.840	30.8	25.89	521	.843	30.6	25.80
Riggers.....	235	.816	30.4	24.81	214	.817	29.9	24.39
Roll turners.....	462	1.012	32.3	32.68	404	1.022	31.6	32.27
Supervisory, plant.....	2,404	.938	35.5	33.31	2,196	.946	35.1	33.23
Welders.....	409	.888	32.4	28.79	395	.890	32.3	28.79
Miscellaneous skilled workers.....	1,376	.826	31.8	26.26	1,233	.828	31.7	26.24
Semiskilled workers.....	12,274	.743	29.3	21.80	11,142	.754	28.8	21.72
Blacksmiths' helpers.....	143	.643	30.0	19.30	123	.664	29.3	19.44
Bricklayers' helpers.....	172	.643	29.0	18.63	145	.657	28.7	18.88
Clerical—plant.....	2,611	.782	30.8	24.10	2,373	.787	30.2	23.77
Cranemen, miscellaneous, semiskilled.....	3,081	.773	28.3	21.86	2,872	.780	27.9	21.77
Crane followers.....	1,801	.704	28.1	19.79	1,694	.714	27.8	19.85
Electricians' helpers.....	140	.692	31.7	21.92	117	.703	32.4	22.79
Firemen, locomotive.....	62	.758	32.8	24.82	47	.807	32.5	26.23
Firemen and water tenders, power.....	337	.742	36.4	27.03	305	.755	36.2	27.36
Inspectors' and repairmen's helpers, motors.....	122	.753	26.6	20.00	122	.753	26.6	20.00
Machinists' helpers.....	292	.686	31.7	21.73	269	.696	31.0	21.56
Millwrights' helpers.....	518	.713	28.2	20.10	488	.724	27.6	19.98
Oilers and greasers, equipment.....	901	.705	28.3	19.92	822	.720	27.9	20.10
Pipe fitters' helpers.....	160	.662	30.9	20.45	144	.681	30.0	20.40
Pumpers.....	153	.746	33.8	25.21	126	.774	33.3	25.79
Switchmen, locomotive.....	510	.805	26.7	21.52	466	.818	25.7	21.05
Miscellaneous semiskilled workers.....	1,271	.710	29.6	21.03	1,029	.736	28.5	20.98
Unskilled workers.....	8,728	.629	27.1	17.01	7,919	.645	26.6	17.12
Laborers, common.....	4,517	.600	26.0	15.58	4,043	.619	25.4	15.72
Laborers, miscellaneous.....	2,891	.664	26.4	17.53	2,691	.674	25.9	17.44
Service workers, plant.....	945	.642	32.6	20.94	865	.654	32.6	21.29
Miscellaneous unskilled workers.....	375	.653	31.2	20.36	320	.686	30.5	20.88
Occupation	Western region				Southern region			
	917	\$0.795	36.3	\$28.89	1,833	\$0.606	33.6	\$20.38
Skilled workers.....	324	.950	33.7	36.77	485	.783	35.6	27.84
Blacksmiths.....	3	(1)	(1)	(1)	19	.769	28.0	21.52
Boilermakers.....	3	(1)	(1)	(1)	6	(1)	(1)	(1)
Bricklayers.....	17	1.304	30.2	39.35	6	(1)	(1)	(1)
Carpenters.....	4	(1)	(1)	(1)	11	.628	36.5	22.93
Cranemen, miscellaneous, skilled.....	12	.877	37.8	33.15	12	.652	39.9	25.98
Electricians.....	21	.991	40.5	40.11	21	.831	37.6	31.25
Engineers, locomotive.....	24	.902	40.0	36.09	14	.687	32.6	22.44
Engineers, power, steam.....	4	(1)	(1)	(1)	11	.712	38.7	27.50
Engineers, power, electric.....	3	(1)	(1)	(1)	3	(1)	(1)	(1)
Inspectors and repairmen, motors.....	8	(1)	(1)	(1)	10	(1)	(1)	(1)
Ladle liners.....	3	(1)	(1)	(1)	2	(1)	(1)	(1)
Machinists.....	21	.983	37.1	36.47	39	.861	35.4	30.42
Millwrights.....	44	.877	37.9	33.19	22	.743	41.9	31.12
Pipe fitters.....	4	(1)	(1)	(1)	18	.737	35.7	26.28
Riggers.....	3	(1)	(1)	(1)	18	.792	35.4	28.06
Roll turners.....	33	.990	39.2	38.83	25	.910	34.3	31.23
Supervisory, plant.....	90	.972	41.8	40.57	118	.778	37.6	29.28
Welders.....	6	(1)	(1)	(1)	8	(1)	(1)	(1)
Miscellaneous skilled workers.....	21	.832	34.9	29.01	122	.802	32.4	25.96

¹ Number of workers not sufficient to permit presentation of an average.

TABLE 4.—Average Hourly Earnings, Weekly Hours, and Weekly Earnings of Male Iron and Steel Workers in Mechanical, Transportation, and Service Work, by Occupation, Skill, and Region, April 1938—Continued

Occupation	Western region				Southern region			
	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings	Number of wage earners	Average hourly earnings	Average weekly hours	Average weekly earnings
Semiskilled workers.....	382	\$0.738	36.1	\$26.66	750	\$0.602	34.0	\$20.47
Blacksmiths' helpers.....	3	(1)	(1)	(1)	17	.511	34.5	17.65
Bricklayers' helpers.....	18	.701	26.7	18.69	9	(1)	(1)	(1)
Clerical—plant.....	90	.761	38.3	29.15	148	.724	36.2	26.22
Cranemen, miscellaneous, semiskilled.....	68	.785	34.5	27.11	141	.645	32.9	21.23
Crane followers.....	40	.719	34.8	25.01	67	.480	31.3	14.99
Electricians' helpers.....	5	(1)	(1)	(1)	18	.588	24.2	14.20
Firemen, locomotive.....	3	(1)	(1)	(1)	12	.534	28.6	15.30
Firemen and water tenders, power.....	9	(1)	(1)	(1)	23	.575	37.8	21.76
Inspectors' and repairmen's helpers, motors.....								
Machinists' helpers.....	5	(1)	(1)	(1)	18	.570	39.6	22.56
Millwrights' helpers.....	17	.725	36.2	26.27	13	.420	39.3	16.48
Oilers and greasers, equipment.....	19	.701	31.1	21.83	60	.525	32.0	16.82
Pipe fitters' helpers.....	2	(1)	(1)	(1)	14	.516	39.2	20.23
Pumpers.....	6	(1)	(1)	(1)	21	.555	34.9	19.33
Switchmen, locomotive.....	20	.799	48.4	38.69	24	.578	28.1	16.26
Miscellaneous semiskilled workers.....	77	.672	33.8	22.72	165	.592	34.8	20.57
Unskilled workers.....	211	.629	33.1	20.80	598	.450	31.6	14.22
Laborers, common.....	95	.605	32.0	19.37	379	.426	30.7	13.09
Laborers, miscellaneous.....	70	.656	35.4	23.23	130	.516	31.8	16.42
Service workers, plant.....	43	.619	31.3	19.35	37	.422	35.1	14.81
Miscellaneous unskilled workers.....	3	(1)	(1)	(1)	52	.472	35.1	16.57

¹ Number of workers not sufficient to permit presentation of an average.

FARM WAGE RATES AND EMPLOYMENT, JULY 1940

THE general level of farm wage rates on July 1, 1940, was 2.4 percent above the level of July 1, 1939. On July 1, 1940, the estimated wage rate per month with board averaged \$29.01; per month without board, \$37.18; per day with board, \$1.37; and per day without board, \$1.62. The estimated average number of hired farm workers on July 1, 1940, was 3,112,000, this number showing an increase of less than 1 percent over July 1, 1939, when the average was 3,091,000. These estimates are made by the Agricultural Marketing Service of the United States Department of Agriculture.¹

The Department of Agriculture publishes also the comparative figures of wage rates and employment for the period 1910 to 1914. The general index of farm wage rates on July 1, 1940, without adjustment for seasonal variations, showed an increase of 29 percent over the average for 1910-14; when adjusted for seasonal variations, the increase was 25 percent. When the higher cost of living is taken into

¹ U. S. Department of Agriculture. Agricultural Marketing Service. Releases on farm employment, June 1940, and on farm wage rates, July 1940. Revised figures of farm wages and employment from 1909 to 1938, as published by the U. S. Department of Agriculture, were summarized in the Monthly Labor Review of June and July 1939, and reprinted as Serial No. R. 976. Figures extending from April 1939 to April 1940 were published in the July 1940 Monthly Labor Review (pp. 183-187).

account, the farm wage rate on July 1, 1940, was much lower than during the base period of 1910-14.²

Employment also declined. The number of hired farm workers on July 1, 1940, when adjusted for seasonal variation, was 11 percent smaller than the average for 1910-14. The estimated number on July 1, 1940, was 3,112,000, a larger number than the average for 1910-14 (2,892,000), but July is a month of high seasonal employment, and this accounts for the fact that when the July employment was seasonally adjusted it fell materially below the general average for 1910-14.

There are wide variations in farm wage rates in the various geographical divisions of the country. (See the accompanying table.) This may be illustrated by the case of the wage rate per day without board, ranging on July 1, 1940, from an average of \$1.04 in the East South Central States to an average of \$2.77 in the Pacific States. There was an even more marked difference in wage rates by States. Thus, the lowest average State wage rate per day without board on July 1, 1940, was 85 cents, which was the average for both South Carolina and Alabama, and the highest average State wage rate per day without board was \$2.90 in Connecticut.

Farm Wage Rates by Geographic Divisions, 1910-14 Average, July 1939, April 1940, and July 1940¹

Geographic division and date	Rate per month—		Rate per day—	
	With board	Without board	With board	Without board
United States:				
Annual average, 1910-14.....	\$22.09	\$29.18	\$1.16	\$1.42
July 1, 1939.....	28.18	36.26	1.36	1.59
April 1, 1940.....	27.45	36.41	1.26	1.55
July 1, 1940.....	29.01	37.18	1.37	1.62
New England				
Annual average, 1910-14.....	24.18	37.70	1.27	1.71
July 1, 1939.....	32.96	57.24	1.79	2.71
April 1, 1940.....	32.58	56.48	1.73	2.58
July 1, 1940.....	33.91	57.90	1.80	2.67
Middle Atlantic:				
Annual average, 1910-14.....	22.25	33.41	1.24	1.63
July 1, 1939.....	29.23	45.56	1.74	2.33
April 1, 1940.....	29.05	46.22	1.68	2.29
July 1, 1940.....	30.73	47.13	1.79	2.38
East North Central:				
Annual average, 1910-14.....	23.75	32.80	1.31	1.68
July 1, 1939.....	29.57	41.71	1.66	2.15
April 1, 1940.....	28.73	41.27	1.52	2.02
July 1, 1940.....	30.35	42.25	1.68	2.17
West North Central:				
Annual average, 1910-14.....	26.32	36.86	1.46	1.88
July 1, 1939.....	29.05	39.19	1.57	2.06
April 1, 1940.....	27.98	38.59	1.39	1.87
July 1, 1940.....	29.37	39.67	1.53	2.06
South Atlantic:				
Annual average, 1910-14.....	14.62	20.97	.81	1.05
July 1, 1939.....	16.89	25.17	.90	1.20
April 1, 1940.....	16.92	25.45	.88	1.18
July 1, 1940.....	17.55	25.69	.92	1.21

¹ For source, see footnote 1, p. 726.

² Industrial wages, on the other hand, rose more than prices. See article on Wages, Hours, and Productivity of Industrial Labor, 1909 to 1939 (p. 517).

*Farm Wage Rates, by Geographic Divisions, 1910-14 Average, July 1939, April 1940,
and July 1940—Continued*

Geographic division and date	Rate per month—		Rate per day—	
	With board	Without board	With board	Without board
East South Central:				
Annual average, 1910-14.....	\$14.71	\$20.80	\$0.81	\$1.05
July 1, 1939.....	16.47	23.57	.81	1.04
April 1, 1940.....	16.14	23.39	.80	1.04
July 1, 1940.....	16.14	23.21	.80	1.04
West South Central:				
Annual average, 1910-14.....	17.35	24.93	.98	1.25
July 1, 1939.....	19.19	27.68	1.00	1.26
April 1, 1940.....	18.70	27.37	.92	1.18
July 1, 1940.....	19.87	28.25	1.00	1.26
Mountain:				
Annual average, 1910-14.....	32.48	40.42	1.50	2.05
July 1, 1939.....	37.24	53.64	1.75	2.34
April 1, 1940.....	35.04	51.30	1.63	2.18
July 1, 1940.....	36.91	52.43	1.74	2.29
Pacific:				
Annual average, 1910-14.....	33.45	48.16	1.49	2.06
July 1, 1939.....	43.18	64.04	2.00	2.70
April 1, 1940.....	41.57	64.91	1.96	2.68
July 1, 1940.....	42.34	65.12	2.09	2.77

It is explained by the Agricultural Marketing Service that the limitations of available data are such as perhaps to overemphasize the rates paid to regularly employed time workers. In some areas, as for example on the Pacific coast, seasonal and migratory workers are paid to a large extent on a piece-rate basis and are not adequately represented in the available wage rate samples.

There was a slight increase in the number of hired farm workers on July 1, 1940, over the number on July 1, 1939, the estimated increase for the country as a whole being 21,000, but in five of the nine main geographical areas there were reductions. The increases were in the West North Central, the West South Central, the Mountain, and the Pacific States. The increase in hired labor in these areas was not a result of any new demand for farm labor but was incidental to the late season and the resulting rush of work in harvesting small grains, haying, and cultivating row crops.

The recently inaugurated series of quarterly reports on the length of the farm workday indicates that on June 1, 1940, the workday for hired workers was longer than on any of the earlier dates—September 1, 1939, December 1, 1939, and March 1, 1940. The average for the country as a whole, for hired farm workers, was 10.4 hours on June 1 and 9.5 hours on March 1. The difference was presumably for the most part seasonal. The average on September 1, 1939, was 10.1 hours.

WAGES AND WORKING CONDITIONS IN THE CUBAN CANDY INDUSTRY, 1940 ¹

BY AGREEMENT between employers and workers, wages paid by Habana candy manufacturers average from 1.60 to 2.20 pesos ² per 8-hour day for unskilled labor (woman workers usually receive the lower rates), while semiskilled and skilled workers receive up to 3 pesos per day.

A maternity tax of three-fourths of 1 percent, levied upon all salaries and wages except those paid in agriculture, is placed in a special fund available for specified cash benefits to wives (including common-law wives) of salaried and wage-earning employees, during absences from work incident to and at the time of childbirth; two-thirds of this tax is borne by the employers and one-third by the employees.

Salaried and wage-earning employees are entitled to paid vacations at the rate of 7 days for each 1,248 hours of work performed, amounting to approximately 2 weeks per year. Sick leave is also granted for periods not to exceed 3 days in any one instance, with a maximum of 9 days per year.

Ventilation in the places of work seems reasonably adequate, and where the nature of the work permits, employees are provided with seats and are free to move around at intervals for muscular and other relaxation.



DECREASE OF REAL WAGES IN ESTONIA³

ON April 1, 1940, there were 56,456 wage earners in manufacturing enterprises employing 5 or more workers each. These establishments had a total pay roll of 3,363,000 krooni ⁴ in March 1940, as compared with 3,496,000 krooni in March 1939.

The average hourly wages in February and March 1940 were as follows:

Establishments employing—

20 or more workers:

		February	March
Males.....	senti..	45. 5	47. 0
Females.....	do.....	29. 6	31. 6

5 to 19 workers:

Males.....	do.....	38. 1	38. 9
Females.....	do.....	24. 5	24. 9

In spite of an increase of money wages, on the basis of hourly wages, the purchasing power of the workers of large enterprises

¹ Data are from report of Thomas S. Campen, American vice consul at Habana.

² Average exchange rate of Cuban peso in June 1940=90 cents.

³ Data are from report of M. H. Colladay, American Consul at Tallinn.

⁴ Kroon (100 senti)=about 27 cents.

decreased 7 percent for male and 3 percent for female workers, from March 1939 to March 1940. On the basis of weekly pay rolls, which reflect part-time operation, the real wages of male workers decreased 8.2 percent and those of female workers 7 percent.



WAGES IN SWITZERLAND, 1939

AVERAGE earnings in Switzerland were higher in 1939, as in the preceding years, in the large cities than in the rest of the country. In general, this excess was somewhat more pronounced for daily earnings than for hourly earnings. The annual report¹ of wages in certain industries published by the Federal Bureau of Industry, Arts and Trades, and Labor is based on data obtained from workers injured in industrial accidents as to the actual wages and supplementary allowances received by them at the time of the accident. The reports for 1939 covered 63,959 workers, of whom 51,522 reported hourly earnings and 12,437 daily earnings. The increases in daily earnings in 1939 as compared with 1938 ranged from 0.5 to 1.1 percent for adult male workers, and averaged 3.6 percent for young workers of both sexes. The daily earnings of women aged 18 and over were 1.9 percent below the average for 1938. Hourly earnings of foremen and master workmen were 1.1 percent lower in 1939 than in the preceding year, whereas earnings of other male workers increased from 0.1 to 0.4 percent; the hourly earnings of young persons under 18 were 0.6 percent higher; and there was no change in the earnings of women over the age of 18. As compared with 1913, average daily wages of men had increased by 101 to 113 percent; for women the increase was 93 percent; and for young persons, 43 percent. Hourly earnings for men had increased by 113 to 124 percent, for women 143 percent, and for young persons 53 percent. The purchasing power of wages based on the cost-of-living index did not vary much between 1938 and 1939, as the index had risen by only 0.7 percent. Based on 1913, however, the index of daily real wages was between 146 and 154 for adult males and of hourly wages between 154 and 162. For women the indexes were 140 for daily rates and 176 for hourly rates; for young persons the corresponding indexes were 103 and 111. The largest wage increases in 1939 were in the four principal cities—Zurich, Berne, Basel, and Geneva.

The following table shows the average daily and hourly earnings reported for the different classes of workers in the various industries in 1939.

¹ Switzerland. Département Fédéral de l'Économie Publique. *La Vie Économique*, Berne, June 1940, p. 302.

Average Daily and Hourly Earnings of Workers in Specified Industries in Switzerland in 1939

[Average exchange rate of franc in 1939=22.53 cents]

Industry	Average daily earnings (in francs) of—			Average hourly earnings (in francs) of—		
	Skilled and semi-skilled workers	Unskilled workers	Women 18 years of age and over	Skilled and semi-skilled workers	Unskilled workers	Women 18 years of age and over
Average, all occupations.....	12.20	9.69	6.21	1.37	1.07	0.72
Metals and machines.....	11.07	9.41	.....	1.38	1.08	.73
Building.....	12.76	11.22	.....	1.46	1.09	.....
Wood.....	9.01	7.18	.....	1.26	.96	.61
Textiles.....	11.14	8.99	5.96	1.06	.92	.70
Watches.....	12.90	.....	6.06	1.42	1.04	.83
Stone and earth.....	11.67	8.30	.....	1.31	1.05	.....
Shoes.....	.....	.....	.....	1.19	.....	.71
Paper.....	13.23	.....	.....	1.30	1.02	.64
Graphic arts.....	15.36	8.98	5.86	1.86	1.08	.77
Chemicals.....	13.91	10.39	.....	1.44	1.21	.71
Food, drink, and tobacco.....	13.73	11.98	6.34	1.41	1.18	.70
Conveyances.....	10.81	9.89	.....	.....	1.18	.....
Commercial establishments.....	13.08	11.28	7.68	.....	1.21	.65
Electric light and power.....	14.87	11.10	.....	1.53	1.12	.....
Gas and water.....	16.75	14.64	.....	1.77	1.42	.....
Mining and quarrying.....	9.79	7.66	.....	1.24	.98	.....
Forestry.....	9.80	7.33	.....	.94	.89	.....

Building Operations

BUILDERS OF 1-FAMILY HOUSES IN 72 CITIES¹

MOST of the cheapest houses built in 1938 and most of the expensive ones were erected by small builders. Those responsible for the cheapest houses included subcontractors and craftsmen who build one or two houses, often as a speculation, in off hours or between jobs. Also in this class were many owner-builders and general handy men who built on a commission or salary basis as agent of the owner. The latter were relatively more frequent in the smaller places. The most expensive houses were commonly built by contractors who specialize in custom jobs.

In general, the larger the builder the greater was the tendency to concentrate on construction of medium-cost houses. The prominent operative builders, for the most part, belonged to the group that limited its operations to the middle-priced field. A number of owner-builders also were found in this group, as well as in all cost groups.

TABLE 1.—Number of New 1-Family Houses in 72 Cities, 1938, by Size of Builder, and by Permit Valuation

Permit valuation per house ¹	Total	Builders of—									
		1 house	2-4 houses	5-9 houses	10-14 houses	15-24 houses	25-49 houses	50-99 houses	100-149 houses	150-199 houses	200 or more houses
Total.....	47,156	8,890	8,111	7,069	4,409	4,197	4,825	4,369	2,687	1,083	1,516
Under \$500.....	841	453	179	76	52	11	70	—	—	—	—
\$500 to \$1,000.....	1,194	677	274	101	19	59	59	5	—	—	—
\$1,000 to \$1,500.....	1,428	594	358	164	64	154	86	8	—	—	—
\$1,500 to \$2,000.....	1,726	547	468	284	156	124	103	44	—	—	—
\$2,000 to \$2,500.....	2,561	600	579	455	273	242	222	175	7	—	8
\$2,500 to \$3,000.....	3,221	651	629	464	279	301	298	347	186	—	66
\$3,000 to \$3,500.....	5,666	810	828	794	495	508	616	774	439	264	138
\$3,500 to \$4,000.....	5,707	746	767	750	600	601	820	864	495	24	40
\$4,000 to \$4,500.....	7,096	778	952	1,058	850	628	838	743	723	114	412
\$4,500 to \$5,000.....	4,297	519	535	616	381	334	511	627	326	143	305
\$5,000 to \$5,500.....	5,221	682	739	786	624	548	598	505	273	258	308
\$5,500 to \$6,000.....	2,193	342	379	405	219	258	221	187	86	125	1
\$6,000 to \$7,500.....	3,713	790	737	640	308	333	293	95	132	147	238
\$7,500 to \$10,000.....	1,392	381	389	315	137	67	69	21	7	6	—
\$10,000 to \$15,000.....	636	219	196	125	38	21	20	3	13	1	—
\$15,000 and over.....	264	101	102	36	14	8	1	1	—	1	—

¹ When a garage (whether detached, attached, or built-in) was authorized coincident with the house, the valuation of the garage is included.

¹ These data are part of the information collected in the Bureau of Labor Statistics' building permit survey. The survey, made by the Division of Construction and Public Employment, is a Nation-wide Federal Works project.

A firm erecting 15 or more houses a year can buy more cheaply and operate more efficiently in many respects than an individual building a single house. The individual may be willing to go ahead if he can make wages or the equivalent from the job, whereas the larger builder requires a minimum profit on each house, regardless of its cost, as an inducement. This minimum profit may easily exceed the savings resulting from size in the case of cheap houses. This could account for the outstanding position of the smallest-size builders in the cheapest-house field in 1938.

TABLE 2.—Percentage Distribution of New 1-Family Houses in 72 Cities, 1938

BY SIZE OF BUILDER

Permit valuation per house ¹	Total	Builders of—									
		1 house	2-4 houses	5-9 houses	10-14 houses	15-24 houses	25-49 houses	50-99 houses	100-149 houses	150-199 houses	200 or more house
Total.....	100.0	18.9	17.2	15.0	9.3	8.9	10.2	9.3	5.7	2.3	3.2
Under \$500.....	100.0	53.9	21.3	9.0	6.2	1.3	8.3	—	—	—	—
\$500 to \$1,000.....	100.0	56.7	23.0	8.5	1.6	4.9	4.9	.4	—	—	—
\$1,000 to \$1,500.....	100.0	41.6	25.1	11.5	4.5	10.8	6.0	.5	—	—	—
\$1,500 to \$2,000.....	100.0	31.7	27.1	16.5	9.0	7.2	6.0	2.5	—	—	—
\$2,000 to \$2,500.....	100.0	23.4	22.6	17.8	10.7	9.4	8.7	6.8	.3	—	.3
\$2,500 to \$3,000.....	100.0	20.2	19.5	14.4	8.7	9.3	9.3	10.8	5.8	—	2.0
\$3,000 to \$3,500.....	100.0	14.3	14.6	14.0	8.7	9.0	10.9	13.7	7.7	4.7	2.4
\$3,500 to \$4,000.....	100.0	13.1	13.4	13.2	10.5	10.5	14.4	15.1	8.7	.4	.7
\$4,000 to \$4,500.....	100.0	11.0	13.4	14.9	12.0	8.8	11.8	10.5	10.2	1.6	5.8
\$4,500 to \$5,000.....	100.0	12.1	12.5	14.3	8.9	7.8	11.9	14.6	7.6	3.3	7.0
\$5,000 to \$5,500.....	100.0	13.1	14.2	15.1	10.0	10.5	11.5	9.7	5.2	4.9	5.8
\$5,500 to \$6,000.....	100.0	15.6	17.3	18.5	10.0	11.8	10.1	7.1	3.9	5.7	(²)
\$6,000 to \$7,500.....	100.0	21.3	19.8	17.2	8.3	9.0	7.9	2.5	3.6	4.0	6.4
\$7,500 to \$10,000.....	100.0	27.4	28.0	22.6	9.8	4.8	5.0	1.5	.5	.4	—
\$10,000 to \$15,000.....	100.0	34.4	30.8	19.7	6.0	3.3	3.1	.5	2.0	.2	—
\$15,000 and over.....	100.0	38.3	38.6	13.6	5.3	3.0	.4	.4	—	.4	—

BY PERMIT VALUATION

Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	0.100
Under \$500.....	1.8	5.1	2.2	1.1	1.2	.3	1.4	—	—	—	—
\$500 to \$1,000.....	2.5	7.6	3.4	1.4	.4	1.4	1.2	.1	—	—	—
\$1,000 to \$1,500.....	3.0	6.7	4.4	2.3	1.5	3.7	1.8	.2	—	—	—
\$1,500 to \$2,000.....	3.7	6.2	5.8	4.0	3.5	2.9	2.1	1.0	—	—	—
\$2,000 to \$2,500.....	5.4	6.7	7.1	6.4	6.2	5.8	4.6	4.0	.3	—	.5
\$2,500 to \$3,000.....	6.8	7.3	7.8	6.6	6.3	7.2	6.2	7.9	6.9	—	4.4
\$3,000 to \$3,500.....	12.0	9.1	10.2	11.2	11.2	12.1	12.8	17.7	16.3	24.4	9.1
\$3,500 to \$4,000.....	12.1	8.4	9.5	10.6	13.6	14.3	17.0	19.8	18.4	2.2	2.6
\$4,000 to \$4,500.....	15.0	8.8	11.7	15.0	19.3	15.0	17.4	17.0	26.9	10.5	27.2
\$4,500 to \$5,000.....	9.1	5.8	6.6	8.7	8.6	8.0	10.6	14.4	12.1	13.2	20.1
\$5,000 to \$5,500.....	11.1	7.7	9.1	11.2	11.9	13.0	12.4	11.5	10.2	23.8	20.3
\$5,500 to \$6,000.....	4.7	3.8	4.7	5.7	5.0	6.1	4.6	3.6	3.2	11.5	.1
\$6,000 to \$7,500.....	7.9	8.9	9.1	9.1	7.0	7.9	6.1	2.2	4.9	13.6	15.7
\$7,500 to \$10,000.....	3.0	4.3	4.8	4.4	3.1	1.6	1.4	.5	.3	.6	—
\$10,000 to \$15,000.....	1.3	2.5	2.4	1.8	.9	.5	.4	.1	.5	.1	—
\$15,000 and over.....	.6	1.1	1.2	.5	.3	.2	(²)	(²)	—	.1	—

¹ When a garage (whether detached, attached, or built-in) was authorized coincident with the house, the valuation of the garage is included.

² Less than a tenth of 1 percent.

The tendency for the larger builders to concentrate in the middle-cost ranges was as pronounced in the big cities as in the 72-city composite shown in tables 1 and 2. Even in 13 cities of 500,000 or more population, over 60 percent of the houses with permit valuations

of less than \$2,000 were constructed by builders of 1 to 4 houses, although they accounted for less than 30 percent of all houses. There were, however, relatively fewer houses with permit values under \$2,000 in the big cities than in smaller places.

There may be a tendency for greater relative understatement of construction cost in the case of low permit valuations than of high ones. Partial tabulation of data on the relationship between construction cost and permit valuation of identical houses built in 1938, while not conclusive, indicates that such may be the case. In addition, it should be pointed out that more than half of the houses with permit valuations under \$1,000 were in the West South Central and Pacific divisions, in which undervaluation appears to be greatest. The same partial data, however, do not suggest any general or regional difference in the degree of understatement as between large and small builders.

Even in the largest cities, more than half the builders took out permits to build only one house each inside the city limits. In some cases they may have built homes outside the city, or may have done other kinds of construction work. In many instances they were owner-builders, deriving their incomes from sources other than the construction industry. A large number were subcontractors or construction craftsmen, dependent on construction activities for the bulk of their incomes, but not solely as general contractors or speculative builders.

TABLE 3.—*Number of Builders of 1-Family Houses in 72 Cities, 1938, by Size of Builder and by 1930 Population of City*

Size of city	Number of cities	Total number of builders	Builders of specified number of houses									
			1	2-4	5-9	10-14	15-24	25-49	50-99	100-149	150-199	200 or more
Total.....	72	13,934	8,890	3,105	1,095	379	223	144	65	22	6	5
500,000 or more ¹	13	8,412	5,229	1,750	728	301	182	127	62	22	6	5
100,000 to 500,000.....	15	3,457	2,223	883	252	56	30	11	2			
50,000 to 100,000.....	11	737	481	191	51	7	3	3	1			
25,000 to 50,000.....	9	483	358	94	23	4	4					
10,000 to 25,000.....	11	419	305	94	12	3	2	3				
5,000 to 10,000.....	11	319	224	64	21	8	2					
1,000 to 5,000.....	2	107	70	29	8							

¹ Washington, D. C., included in this group.

Except in cities of a half-million population or more, over one-fourth of the new 1-family houses were put up by 1-house builders, and over half the new homes were constructed by builders of fewer than 5 houses per year each. Even in the 13 biggest cities, less than half of the 1-family houses were erected by builders who constructed as many as 15 such houses in the year 1938.

TABLE 4.—Number of New 1-Family Houses in 72 Cities, 1938, by Size of Builder and by 1930 Population of City

Size of city	Num-ber of cities	Total num-ber of houses	Builders of specified number of houses									
			1	2-4	5-9	10-14	15-24	25-49	50-99	100-149	150-199	200 or more
Total.....	72	47, 156	8, 890	8, 111	7, 069	4, 409	4, 197	4, 825	4, 369	2, 687	1, 083	1, 516
500,000 or more ¹	13	35, 217	5, 229	4, 595	4, 751	3, 478	3, 418	4, 273	4, 187	2, 687	1, 083	1, 516
100,000 to 500,000.....	15	7, 838	2, 223	2, 301	1, 593	671	566	356	128	-----	-----	-----
50,000 to 100,000.....	11	1, 617	481	501	316	85	65	115	54	-----	-----	-----
25,000 to 50,000.....	9	871	358	234	154	51	74	-----	-----	-----	-----	-----
10,000 to 25,000.....	11	768	305	235	80	31	36	81	-----	-----	-----	-----
5,000 to 10,000.....	11	651	224	165	131	93	38	-----	-----	-----	-----	-----
1,000 to 5,000.....	2	194	70	80	44	-----	-----	-----	-----	-----	-----	-----

¹ Washington, D. C. included in this group.

An individual or firm erecting as many as 10 houses inside a single city was a relatively large enterprise. Only 6 percent of the builders did that much home building in 1938. They took out nearly half of all the permits issued for 1-family houses. Less than 2 percent of the builders took out permits for 25 or more houses per year; they accounted for 30 percent of the houses, however. At the other extreme, single-house builders made up 64 percent of all builders, but accounted for only 19 percent of the houses. In the 13 cities of 500,000 or more population, 15 percent of the houses were erected by builders taking out only one permit each. About 40 percent of the homes were built by this group in cities of 10,000 to 50,000 population.

TABLE 5.—Cumulative Percentage Distribution of Builders and Houses in 72 Cities, 1938, by Size of Builder and by 1930 Population of City

BUILDERS												
Size of city	Num-ber of cities	Builders of—										
		1 house	2-4 houses	5-9 houses	10-14 houses	15-24 houses	25-49 houses	50-99 houses	100-149 houses	150-199 houses	200 or more houses	
Total.....	72	63.8	86.1	93.9	96.7	98.3	99.3	99.8	99.9	100.0	¹ 100.0	
500,000 or more ¹	13	62.2	83.0	91.6	95.2	97.4	98.9	99.6	99.9	² 99.9	100.0	
100,000 to 500,000.....	15	64.3	89.8	97.1	98.8	99.6	99.9	100.0	-----	-----	-----	
50,000 to 100,000.....	11	65.3	91.2	98.1	99.1	99.5	99.9	100.0	-----	-----	-----	
25,000 to 50,000.....	9	74.1	93.6	98.3	99.2	100.0	-----	-----	-----	-----	-----	
10,000 to 25,000.....	11	72.8	95.2	98.1	98.8	99.3	100.0	-----	-----	-----	-----	
5,000 to 10,000.....	11	70.2	90.3	96.9	99.4	100.0	-----	-----	-----	-----	-----	
1,000 to 5,000.....	2	65.4	92.5	100.0	-----	-----	-----	-----	-----	-----	-----	

HOUSES												
Total.....	72	18.9	36.1	51.0	60.4	69.3	79.5	88.8	94.5	96.8	100.0	
500,000 or more ¹	13	14.8	27.9	41.4	51.3	61.0	73.1	85.0	92.6	95.7	100.0	
100,000 to 500,000.....	15	28.4	57.7	78.0	86.6	93.8	98.4	100.0	-----	-----	-----	
50,000 to 100,000.....	11	29.7	60.7	80.3	85.5	89.5	96.7	100.0	-----	-----	-----	
25,000 to 50,000.....	9	41.1	68.0	85.6	91.5	100.0	-----	-----	-----	-----	-----	
10,000 to 25,000.....	11	39.7	70.3	80.7	84.8	89.5	100.0	-----	-----	-----	-----	
5,000 to 10,000.....	11	34.4	59.8	79.9	94.2	100.0	-----	-----	-----	-----	-----	
1,000 to 5,000.....	2	36.1	77.3	100.0	-----	-----	-----	-----	-----	-----	-----	

¹ Washington, D. C., included in this group.² Less than a tenth of 1 percent added.

Classification of house builders by size has been made on the basis of the number of permits taken out in a single city. This results in a tendency to credit particular builders with a smaller number of houses than they actually built, because it ignores any operations that may have been carried on in other cities or outside of cities. A study of builders taking out permits for new houses in Cleveland indicates a somewhat different distribution by size, if work done in the chief suburbs is also counted. However, the difference is less pronounced if, at the same time that work done in the suburbs by Cleveland builders is included, suburban builders who did no work in Cleveland are also added. In the case of Cleveland, more builders constructed homes only in the suburbs than built in Cleveland itself.

By counting work done in the suburbs as well as in Cleveland proper, the 182 Cleveland builders were credited with 170 more houses, or nearly one more house each. Fourteen of the 118 builders who had been classed as 1-house builders had actually built at least 2 houses. On the other hand, there were 170 builders of 1 house each in the suburbs who came into the picture when construction in either Cleveland or the suburbs or both was covered.

TABLE 6.—Size of Builder Based on Work Done in a Single City (Cleveland) Compared With Size Based on Work Done in That City Plus Suburbs

Kind of builders	Number and percent of builders, by size of builder													
	Total		1 house		2-4 houses		5-9 houses		10-14 houses		15-24 houses		25-49 houses	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Builders who built in Cleveland:														
Work in Cleveland only	182	100.0	118	64.8	39	21.4	14	7.7	7	3.9	2	1.1	2	1.1
Work in Cleveland and 8 suburbs ¹	182	100.0	104	57.1	41	22.5	18	9.9	12	6.6	3	1.7	4	2.2
Builders who built in Cleveland or 8 suburbs	458	100.0	274	59.8	119	26.0	40	8.7	16	3.5	5	1.1	4	.9
Number and percent of houses, by size of builder														
Builders who built in Cleveland:														
Work in Cleveland only	494	100.0	118	23.9	106	21.5	89	18.0	85	17.2	38	7.7	58	11.7
Work in Cleveland and 8 suburbs ¹	664	100.0	104	15.6	109	16.4	118	17.8	152	22.9	63	9.5	118	17.8
Builders who built in Cleveland or 8 suburbs	1,261	100.0	274	21.7	324	25.7	246	19.5	201	15.9	96	7.8	118	9.4

¹ Cleveland Heights, Euclid, Lakewood, East Cleveland, Garfield Heights, Parma, Shaker Heights and University Heights.

Tables 7 and 8 show data for each of the 72 cities; the cities are arranged by geographic division, and by size within divisions. Distributions are shown both of home builders and of new 1-family houses, by number of houses per builder.

TABLE 7.—Number and Percent of Builders of 1-Family Houses in 72 Cities, 1938, by Size of Builder

City	Popula- tion census of 1930	Total build- ers		Percent of builders of—					
		Num- ber	Per- cent	1 house	2-4 houses	5-9 houses	10-24 houses	25-99 houses	100 or more houses
72-city total.....	22,626,015	13,934	100.0	63.8	22.3	7.9	4.3	1.5	0.2
New England:									
Boston, Mass.....	781,188	76	100.0	67.1	22.4	7.9	2.6		
Bridgeport, Conn.....	146,716	79	100.0	74.7	24.0	1.3			
Pawtucket, R. I.....	77,149	42	100.0	47.6	42.9	9.5			
Arlington, Mass.....	36,094	55	100.0	54.6	32.7	10.9	1.8		
Concord, N. H.....	25,228	20	100.0	75.0	25.0				
South Portland, Maine.....	13,840	30	100.0	90.0	6.7			3.3	
Middle Atlantic:									
New York City, N. Y:									
The Bronx.....	1,265,258	136	100.0	62.5	20.6	12.5	3.7	.7	
Brooklyn.....	2,560,401	133	100.0	30.8	21.1	15.0	18.8	12.0	2.3
Manhattan.....	1,867,312								
Queens.....	1,079,129	629	100.0	42.1	19.2	12.1	16.5	8.3	1.8
Richmond.....	158,346	92	100.0	64.1	25.0	6.5	4.4		
Philadelphia, Pa.....	1,950,961	121	100.0	38.9	18.2	9.1	16.5	13.2	4.1
Pittsburgh, Pa.....	669,817	206	100.0	80.1	14.5	4.4	1.0		
Buffalo, N. Y.....	573,076	45	100.0	73.3	20.0	4.5	2.2		
Rochester, N. Y.....	328,132	72	100.0	77.8	18.0	2.8	1.4		
Syracuse, N. Y.....	209,326	52	100.0	73.1	23.1	3.8			
Paterson, N. J.....	138,513	18	100.0	72.2	22.2	5.6			
Sharon, Pa.....	25,908	19	100.0	63.1	31.6	5.3			
Bergenfield, N. J.....	8,816	18	100.0	50.0	11.1	33.3	5.6		
East North Central:									
Detroit, Mich.....	1,568,662	1,621	100.0	66.4	16.7	8.5	6.2	1.8	.4
Cleveland, Ohio.....	900,429	182	100.0	64.8	21.4	7.7	5.0	1.1	
Milwaukee, Wis.....	578,249	165	100.0	67.3	22.4	8.5	1.8		
Indianapolis, Ind.....	364,161	255	100.0	50.6	34.1	11.0	3.1	1.2	
Canton, Ohio.....	104,906	58	100.0	74.1	19.0	6.9			
Lakewood, Ohio.....	70,509	23	100.0	73.9	26.1				
Racine, Wis.....	67,542	26	100.0	69.2	23.1	7.7			
Cleveland Heights, Ohio.....	50,945	107	100.0	62.6	28.0	6.6	2.8		
Muncie, Ind.....	46,548	117	100.0	90.6	7.7	1.7			
East Cleveland, Ohio.....	39,667	4	100.0	100.0					
Shaker Heights, Ohio.....	17,783	64	100.0	53.1	45.3	1.6			
Garfield Heights, Ohio.....	15,589	24	100.0	91.7	8.3				
Parma, Ohio.....	13,899	36	100.0	83.3	16.7				
Euclid, Ohio.....	12,751	47	100.0	63.8	23.4	6.4	4.3	2.1	
Peoria Heights, Ill.....	3,279	28	100.0	92.9	7.1				
University Heights, Ohio.....	2,237	79	100.0	55.7	34.2	10.1			
West North Central:									
St. Louis, Mo.....	821,900	229	100.0	46.3	31.9	14.4	6.1	1.3	
Des Moines, Iowa.....	142,559	154	100.0	69.5	19.5	7.8	2.6	.6	
Topeka, Kans.....	64,120	94	100.0	66.0	22.3	8.5	3.2		
Sioux Falls, S. Dak.....	33,362	94	100.0	76.6	13.8	6.4	3.2		
Fairmont, Minn.....	5,521	26	100.0	61.5	23.1	15.4			
South Atlantic:									
Baltimore, Md.....	804,874	166	100.0	35.5	27.7	15.7	13.9	6.0	1.2
Washington, D. C.....	486,809	386	100.0	52.8	23.1	10.6	9.3	3.9	.3
Atlanta, Ga.....	270,366	318	100.0	71.4	19.2	7.8	1.6		
Wheeling, W. Va.....	61,659	54	100.0	79.6	16.7	3.7			
Augusta, Ga.....	60,342	65	100.0	52.3	37.0	7.7	1.5	1.5	
Asheville, N. C.....	50,193	21	100.0	71.4	19.1	9.5			
Wilmington, N. C.....	32,270	25	100.0	76.0	24.0				
Beckley, W. Va.....	9,357	48	100.0	66.6	25.0	4.2	4.2		
East South Central:									
Birmingham, Ala.....	259,678	140	100.0	75.0	19.3	4.3	1.4		
Memphis, Tenn.....	253,143	248	100.0	65.3	23.0	8.1	3.2	.4	
Covington, Ky.....	65,252	11	100.0	63.6	18.2	9.1	9.1		
Vicksburg, Miss.....	22,943	29	100.0	96.6	3.4				
Dothan, Ala.....	16,046	42	100.0	78.6	11.9	4.7	2.4	2.4	
West South Central:									
Dallas, Tex.....	260,475	669	100.0	54.4	32.4	8.7	4.0	.5	
San Antonio, Tex.....	231,542	382	100.0	74.9	19.1	3.4	2.3	.3	
Little Rock, Ark.....	81,679	62	100.0	69.4	24.2	6.4			
Shreveport, La.....	76,655	232	100.0	66.8	24.1	6.9	.9	1.3	

TABLE 7.—Number and Percent of Builders of 1-Family Houses in 72 Cities, 1938, by Size of Builder—Continued

City	Popu- lation census of 1930	Total build- ers		Percent of builders of—						
		Num- ber	Per- cent	1 house	2-4 houses	5-9 houses	10-24 houses	25-99 houses	100 or more houses	
West South Central—Continued.										
North Little Rock, Ark.....	19,418	37	100.0	64.9	27.0	8.1	—	—	—	
Greenville, Tex.....	12,407	30	100.0	56.7	40.0	3.3	—	—	—	
El Reno, Okla.....	9,384	31	100.0	87.1	9.7	—	3.2	—	—	
Mountain:										
Denver, Colo.....	287,861	331	100.0	65.3	25.1	7.5	2.1	—	—	
Pocatello, Idaho.....	16,471	30	100.0	80.0	13.4	3.3	3.3	—	—	
Las Vegas, Nev.....	5,165	21	100.0	76.2	14.2	4.8	4.8	—	—	
Brigham, Utah.....	5,093	14	100.0	85.7	14.3	—	—	—	—	
Pacific:										
Los Angeles, Calif.....	1,238,048	3,874	100.0	67.9	21.3	7.0	2.9	0.9	(1)	
San Francisco, Calif.....	634,394	351	100.0	50.4	25.9	13.1	6.3	3.4	0.9	
Oakland, Calif.....	284,063	410	100.0	57.1	28.8	10.7	2.4	1.0	—	
Spokane, Wash.....	115,514	271	100.0	67.9	26.2	4.1	1.8	—	—	
Alameda, Calif.....	35,033	42	100.0	64.3	21.5	7.1	7.1	—	—	
Salem, Oreg.....	26,266	107	100.0	68.2	26.2	4.7	.9	—	—	
Beverly Hills, Calif.....	17,429	50	100.0	72.0	24.0	2.0	2.0	—	—	
Piedmont, Calif.....	9,333	18	100.0	72.2	27.8	—	—	—	—	
Watsonville, Calif.....	8,344	15	100.0	60.0	26.7	13.3	—	—	—	
San Fernando, Calif.....	7,567	37	100.0	81.1	8.1	8.1	2.7	—	—	
Culver City, Calif.....	5,669	79	100.0	63.3	29.1	3.8	3.8	—	—	
Albany, Oreg.....	5,325	12	100.0	83.4	8.3	—	8.3	—	—	

¹ Less than a tenth of 1 percent.

TABLE 8.—Number and Percent of New 1-Family Houses in 72 Cities, 1938, by Size of Builder

City	Popula- tion cen- sus of 1930	Total 1-fam- ily houses		Percent of houses by builders of—					
		Num- ber	Per- cent	1 house	2-4 houses	5-9 houses	10-24 houses	25-99 houses	100 or more houses
72-city total.	22,626,015	47,156	100.0	18.9	17.2	15.0	18.2	19.5	11.2
New England:									
Boston, Mass.	781,188	170	100.0	30.0	27.7	23.5	18.8		
Bridgeport, Conn.	146,716	106	100.0	55.7	39.6	4.7			
Pawtucket, R. I.	77,149	94	100.0	21.3	50.0	28.7			
Arlington, Mass.	36,094	134	100.0	22.4	31.3	32.1	14.2		
Concord, N. H.	25,228	26	100.0	57.7	42.3				
South Portland, Maine.	13,840	56	100.0	48.2	7.1			44.7	
Middle Atlantic:									
New York City, N. Y.:									
The Bronx	1,265,258	368	100.0	23.1	21.2	28.5	16.9	10.3	
Brooklyn	2,560,401	1,743	100.0	2.3	4.8	7.6	18.7	45.1	21.5
Manhattan	1,867,312								
Queens	1,079,129	7,272	100.0	3.6	4.6	7.0	21.4	34.4	29.0
Richmond	158,346	215	100.0	27.4	27.4	19.1	26.1		
Philadelphia, Pa.	1,950,961	1,879	100.0	2.5	3.4	4.0	14.7	41.3	34.1
Pittsburgh, Pa.	669,817	314	100.0	52.5	23.9	15.6	8.0		
Buffalo, N. Y.	573,076	78	100.0	42.3	28.2	14.1	15.4		
Rochester, N. Y.	328,132	115	100.0	48.7	32.2	8.7	10.4		
Syracuse, N. Y.	209,326	85	100.0	44.7	38.8	16.5			
Paterson, N. J.	138,513	30	100.0	43.3	36.7	20.0			
Sharon, Pa.	25,908	34	100.0	35.3	38.2	26.5			
Bergenfield, N. J.	8,816	61	100.0	14.7	6.6	57.4	21.3		
East North Central:									
Detroit, Mich.	1,568,662	6,478	100.0	16.6	11.2	13.8	22.5	19.0	16.9
Cleveland, Ohio	900,429	494	100.0	23.9	21.5	18.0	24.9	11.7	
Milwaukee, Wis.	578,249	334	100.0	33.2	27.2	25.5	14.1		
Indianapolis, Ind.	364,161	814	100.0	15.8	27.4	21.9	17.2	17.7	
Canton, Ohio	104,906	95	100.0	45.3	28.4	26.3			
Lakewood, Ohio	70,509	34	100.0	50.0	50.0				
Racine, Wis.	67,542	46	100.0	39.2	30.4	30.4			
Cleveland Heights, Ohio	50,945	239	100.0	28.0	33.5	15.5	23.0		
Muncie, Ind.	46,548	136	100.0	77.9	14.7	7.4			

TABLE 8.—Number and Percent of New 1-Family Houses in 72 Cities, 1938,
by Size of Builder—Continued

City	Popula- tion cen- sus of 1930	Total 1-fam- ily houses		Percent of houses by builders of—					
		Num- ber	Per- cent	1 house	2-4 houses	5-9 houses	10-24 houses	25-99 houses	100 or more houses
East North Central—Continued.									
East Cleveland, Ohio.....	39,667	4	100.0	100.0	—	—	—	—	—
Shaker Heights, Ohio.....	17,783	113	100.0	30.1	64.6	5.3	—	—	—
Garfield Heights, Ohio.....	15,589	28	100.0	78.6	21.4	—	—	—	—
Parma, Ohio.....	13,899	46	100.0	65.2	34.8	—	—	—	—
Euclid, Ohio.....	12,751	141	100.0	21.3	22.0	16.3	22.0	18.4	—
Peoria Heights, Ill.....	3,279	32	100.0	81.3	18.7	—	—	—	—
University Heights, Ohio.....	2,237	162	100.0	27.2	45.6	27.2	—	—	—
West North Central:									
St. Louis, Mo.....	821,960	791	100.0	13.4	23.8	27.6	23.1	12.1	—
Des Moines, Iowa.....	142,559	389	100.0	27.5	21.3	19.3	19.0	12.9	—
Topeka, Kans.....	64,120	202	100.0	30.7	27.2	24.3	17.8	—	—
Sioux Falls, S. Dak.....	33,362	187	100.0	38.5	16.0	23.0	22.5	—	—
Fairmont, Minn.....	5,521	60	100.0	26.7	28.3	45.0	—	—	—
South Atlantic:									
Baltimore, Md.....	804,874	1,493	100.0	3.9	8.2	11.4	20.2	32.1	24.2
Washington, D. C.....	486,869	1,972	100.0	10.3	12.2	14.4	24.9	32.5	5.7
Atlanta, Ga.....	270,366	612	100.0	37.1	26.8	26.1	10.0	—	—
Wheeling, W. Va.....	61,659	77	100.0	55.8	29.9	14.3	—	—	—
Augusta, Ga.....	60,342	195	100.0	17.4	32.3	18.0	11.8	20.5	—
Asheville, N. C.....	50,193	35	100.0	42.8	28.6	28.6	—	—	—
Wilmington, N. C.....	32,270	38	100.0	50.0	50.0	—	—	—	—
Beckley, W. Va.....	9,357	105	100.0	30.5	27.6	12.4	29.5	—	—
East South Central:									
Birmingham, Ala.....	259,678	228	100.0	46.0	26.8	17.1	10.1	—	—
Memphis, Tenn.....	253,143	617	100.0	26.3	24.6	19.9	21.7	7.5	—
Covington, Ky.....	65,252	29	100.0	24.1	13.8	24.1	38.0	—	—
Vicksburg, Miss.....	22,943	31	100.0	90.3	9.7	—	—	—	—
Dothan, Ala.....	16,046	100	100.0	33.0	12.0	15.0	10.0	30.0	—
West South Central:									
Dallas, Tex.....	260,475	1,757	100.0	20.7	31.9	20.7	21.2	5.5	—
San Antonio, Tex.....	231,542	725	100.0	39.4	25.9	12.6	17.5	4.6	—
Little Rock, Ark.....	81,679	103	100.0	41.7	37.9	20.4	—	—	—
Shreveport, La.....	76,655	563	100.0	27.5	26.5	18.7	4.4	22.9	—
North Little Rock, Ark.....	19,418	65	100.0	36.9	35.4	27.7	—	—	—
Greenville, Tex.....	12,407	55	100.0	30.9	56.4	12.7	—	—	—
El Reno, Okla.....	9,384	45	100.0	60.0	17.8	—	22.2	—	—
Mountain:									
Denver, Colo.....	287,861	696	100.0	31.0	32.0	24.3	12.7	—	—
Pocatello, Idaho.....	16,471	48	100.0	50.0	18.8	10.4	20.8	—	—
Las Vegas, Nev.....	5,165	45	100.0	35.6	13.3	11.1	40.0	—	—
Brigham, Utah.....	5,093	17	100.0	70.6	29.4	—	—	—	—
Pacific:									
Los Angeles, Calif.....	1,238,048	9,568	100.0	27.5	22.3	18.4	17.2	13.5	1.1
San Francisco, Calif.....	634,394	2,048	100.0	8.6	10.9	14.2	14.7	27.7	23.9
Oakland, Calif.....	284,063	1,056	100.0	22.2	29.5	25.3	12.1	10.9	—
Spokane, Wash.....	115,514	513	100.0	35.9	35.9	13.2	15.0	—	—
Alameda, Calif.....	35,033	127	100.0	21.3	21.3	16.5	40.9	—	—
Salem, Oreg.....	26,266	185	100.0	39.5	38.9	15.1	6.5	—	—
Beverly Hills, Calif.....	17,429	85	100.0	42.3	31.8	7.1	18.8	—	—
Piedmont, Calif.....	9,333	25	100.0	52.0	48.0	—	—	—	—
Watsonville, Calif.....	8,344	35	100.0	25.8	37.1	37.1	—	—	—
San Fernando, Calif.....	7,567	71	100.0	42.2	9.9	28.2	19.7	—	—
Culver City, Calif.....	5,669	161	100.0	31.1	38.5	11.2	19.2	—	—
Albany, Oreg.....	5,325	26	100.0	38.5	7.7	—	53.8	—	—

SUMMARY OF BUILDING CONSTRUCTION IN PRINCIPAL CITIES, JULY 1940 ¹

PERMIT valuations of all types of building construction in 2,113 identical cities were 19.9 percent higher in July than in June. Increases which ranged from 5.7 percent in the group of cities with a population of 5,000 and under 10,000, to 71.7 percent in cities with a

¹ More detailed information by geographic divisions and individual cities is given in a separate pamphlet entitled, "Building Construction, July 1940," copies of which will be furnished upon request.

population of 50,000 and under 100,000, were reported in all city-size groups. Valuations of new residential buildings for which permits were issued in July were 24.9 percent greater than in June. Nonresidential permit valuations showed a gain of 28.0 percent over the preceding month, while additions, alterations, and repairs, on the other hand, declined 4.8 percent.

Over the year period permit valuations of all classes of construction rose 17.1 percent. As compared with July 1939, indicated expenditures for new residential construction were 22.1 percent higher. New nonresidential building construction levels rose 10.3 percent and additions, alterations, and repairs to existing structures increased 13.9 percent.

Comparison of July 1940 with June 1940 and July 1939

A summary of building construction in 2,113 identical cities in July 1940, June 1940, and July 1939 is given in table 1.

TABLE 1.—*Summary of Building Construction for Which Permits Were Issued in 2,113 Identical Cities, July 1940*

Class of construction	Number of buildings			Permit valuation		
	July 1940	Percentage change from—		July 1940	Percentage change from—	
		June 1940	July 1939		June 1940	July 1939
All construction.....	77,358	+8.2	+15.1	\$215,169,809	+19.9	+17.1
New residential.....	23,685	+14.6	+16.3	118,024,086	+24.9	+22.1
New nonresidential.....	13,196	+8.2	+17.0	63,497,702	+28.0	+10.3
Additions, alterations, and repairs.....	40,477	+4.8	+13.8	33,648,021	-4.8	+13.9

A summary of permit valuations of housekeeping dwellings and the number of families provided for in new dwellings in 2,113 identical cities having a population of 1,000 and over, is shown in table 2 for July 1940 compared with June 1940 and July 1939.

TABLE 2.—*Permit Valuation of Housekeeping Dwellings and Number of Families Provided for in 2,113 Identical Cities, July 1940*

Type of dwelling	Permit valuation of housekeeping dwellings			Number of families provided for in new dwellings		
	July 1940	Percentage change from—		July 1940	Percentage change from—	
		June 1940	July 1939		June 1940	July 1939
All types.....	\$114,924,767	+24.0	+21.1	31,876	+26.2	+24.1
1-family.....	86,834,044	+12.5	+18.8	21,612	+11.2	+12.7
2-family ¹	4,735,236	+41.1	+54.3	1,801	+40.8	+57.0
Multifamily ²	23,355,487	+91.6	+24.8	8,463	+88.0	+57.9

¹ Includes 1- and 2-family dwellings with stores.

² Includes multifamily dwellings with stores.

Construction During First 7 Months, 1939 and 1940

Cumulative totals for the first 7 months of 1940 compared with the same months of the preceding year are shown in table 3. The data are based on reports received from cities having a population of 1,000 and over.

TABLE 3.—Permit Valuation of Building Construction in Reporting Cities of 1,000 Population and Over, First 7 Months of 1939 and of 1940

Class of construction	Permit valuation of building construction, first 7 months of—		Percentage change
	1940	1939	
All construction.....	\$1, 215, 151, 585	\$1, 211, 218, 515	+0.3
New residential.....	695, 831, 581	642, 630, 115	+8.3
New nonresidential.....	319, 366, 582	361, 493, 422	-11.7
Additions, alterations, and repairs.....	199, 953, 422	207, 094, 978	-3.4

Table 4 presents the permit valuation of housekeeping dwellings and number of family-dwelling units provided in cities with a population of 1,000 and over for the first 7 months of 1939 and 1940.

TABLE 4.—Permit Valuation of Housekeeping Dwellings and Number of Family-Dwelling Units, First 7 Months, 1939 and 1940, by Type of Dwelling

Type of dwelling	Permit valuation of housekeeping dwellings, first 7 months of—		Percentage change	Number of family-dwelling units, first 7 months of—		Percentage change
	1940	1939		1940	1939	
All types.....	\$681, 664, 296	\$633, 968, 003	+7.5	189, 719	174, 010	+9.0
1-family.....	492, 630, 636	452, 125, 138	+9.0	124, 879	116, 238	+7.4
2-family ¹	24, 440, 590	27, 524, 294	-11.2	9, 698	9, 764	-.7
Multifamily ²	164, 593, 070	154, 318, 571	+6.7	55, 142	48, 008	+14.9

¹ Includes 1- and 2-family dwellings with stores.

² Includes multifamily dwellings with stores.

Analysis by Size of City, July 1940

Table 5 shows the value of permits issued for building construction in July 1940 compared with June 1940 and July 1939, by size of city and by class of construction.

TABLE 5.—Permit Valuation of Building Construction in 2,113 Identical Cities, by Size of City, July 1940

Size of city	Number of cities	Total construction			New residential buildings		
		Permit valuation, July 1940	Percentage change from—		Permit valuation, July 1940	Percentage change from—	
			June 1940	July 1939		June 1940	July 1939
Total, all reporting cities.....	2, 113	\$215, 169, 809	+19. 9	+17. 1	\$118, 024, 086	+24. 9	+22. 1
500,000 and over.....	14	60, 084, 969	+16. 1	+2. 7	27, 978, 443	+28. 9	-7. 7
100,000 and under 500,000.....	79	47, 905, 361	+8. 6	-1. 1	26, 514, 372	+15. 6	+11. 6
50,000 and under 100,000.....	98	29, 693, 625	+71. 7	+113. 9	15, 406, 246	+80. 8	+95. 5
25,000 and under 50,000.....	171	22, 218, 429	+13. 6	+36. 9	12, 599, 879	+26. 9	+48. 4
10,000 and under 25,000.....	445	20, 038, 823	+25. 9	+27. 6	16, 916, 280	+14. 8	+45. 9
5,000 and under 10,000.....	374	14, 520, 230	+5. 7	+15. 0	10, 222, 768	+11. 2	+28. 3
2,500 and under 5,000.....	450	7, 396, 371	+17. 3	-6. 8	5, 400, 857	+12. 0	+21. 5
1,000 and under 2,500.....	482	4, 312, 001	+17. 8	+24. 5	2, 985, 241	+11. 1	+33. 6

Size of city	New nonresidential buildings			Additions, alterations, and repairs			Population (census of 1930)
	Permit valuation, July 1940	Percentage change from—		Permit valuation, July 1940	Percentage change from—		
		June 1940	July 1939		June 1940	July 1939	
Total, all reporting cities.....	\$63, 497, 702	+28. 0	+10. 3	\$33, 648, 021	-4. 8	+13. 9	60, 795, 745
500,000 and over.....	22, 535, 818	+29. 6	+16. 6	9, 570, 708	-24. 3	+8. 4	21, 449, 853
100,000 and under 500,000.....	11, 831, 902	-8. 0	-29. 6	9, 559, 087	+14. 9	+21. 4	15, 017, 880
50,000 and under 100,000.....	10, 065, 225	+118. 5	+263. 1	4, 222, 154	+1. 3	+30. 8	6, 499, 274
25,000 and under 50,000.....	5, 767, 419	+2. 5	+21. 9	3, 851, 131	-3. 6	+28. 0	5, 982, 961
10,000 and under 25,000.....	8, 142, 533	+70. 1	+13. 5	3, 980, 010	+12. 1	(1)	6, 817, 293
5,000 and under 10,000.....	2, 824, 584	-2. 3	-11. 6	1, 472, 878	-11. 1	+0. 3	2, 648, 404
2,500 and under 5,000.....	1, 354, 842	+70. 2	-52. 0	640, 672	-7. 1	-3. 9	1, 608, 382
1,000 and under 2,500.....	975, 379	+47. 9	+32. 0	351, 381	+12. 2	-28. 1	771, 698

¹ Decrease, less than a tenth of 1 percent.

The permit valuation of housekeeping dwellings in the 2,113 identical cities reporting for June and July 1940, together with the number of family-dwelling units provided in new dwellings, by size of city, is given in table 6.

TABLE 6.—Permit Valuation of Housekeeping Dwellings and Number of Families Provided for in 2,113 Identical Cities, by Size of City, June and July 1940

Size of city	Permit valuation of house-keeping dwellings			Number of families provided for in—							
	July 1940	June 1940	Per-centage change	All types		1-family dwellings		2-family dwellings ¹		Multi-family dwellings ²	
				July 1940	June 1940	July 1940	June 1940	July 1940	June 1940	July 1940	June 1940
Total, all reporting cities.....	\$114, 924, 767	\$92, 714, 893	+24. 0	31, 876	25, 265	21, 612	19, 436	1, 801	1, 279	8, 463	4, 553
500,000 and over.....	27, 445, 543	21, 473, 115	+27. 8	7, 017	5, 458	4, 549	4, 051	503	294	1, 965	1, 113
100,000 and under 500,000.....	25, 563, 632	22, 736, 568	+12. 4	7, 590	6, 636	4, 436	3, 973	395	325	2, 759	2, 338
50,000 and under 100,000.....	15, 355, 546	8, 440, 870	+81. 9	4, 481	2, 183	2, 112	1, 897	240	167	2, 129	119
25,000 and under 50,000.....	12, 367, 736	9, 693, 077	+27. 6	3, 667	2, 753	2, 424	2, 135	352	232	891	386
10,000 and under 25,000.....	16, 746, 844	14, 606, 770	+14. 7	4, 553	3, 983	4, 065	3, 716	161	130	327	137
5,000 and under 10,000.....	9, 105, 868	8, 343, 963	+9. 1	2, 398	2, 346	1, 985	1, 856	57	75	356	415
2,500 and under 5,000.....	5, 385, 857	4, 732, 650	+13. 8	1, 417	1, 209	1, 341	1, 144	57	29	19	36
1,000 and under 2,500.....	2, 953, 741	2, 687, 880	+9. 9	753	697	700	664	36	27	17	6

¹ Includes 1- and 2-family dwellings with stores.

² Includes multifamily dwellings with stores.

The information on building permits issued is based on reports received by the Bureau of Labor Statistics from 2,113 identical cities having a population of 1,000 and over.

The information is collected by the Bureau of Labor Statistics from local building officials, except in the States of Illinois, Massachusetts, New Jersey, and Pennsylvania, where the State departments of labor collect and forward the information to the Bureau. In New York and North Carolina the information from the smaller cities is collected by the Bureau of Labor Statistics from local building officials and the information from the larger cities is collected and forwarded to the Bureau by the State departments of labor. The permit valuations shown in this report are estimates made by prospective builders on applying for permits to build. No land costs are included. Only building projects within the corporate limits of the cities enumerated are included in the Bureau's tabulation. The data collected by the Bureau of Labor Statistics show, in addition to private and municipal construction, the value of buildings for which contracts were awarded by the Federal and State Governments in the cities included in the report. For July 1940 the value of these buildings amounted to \$32,525,000, for June 1940 to \$14,850,000, and for July 1939 to \$21,805,000.

Construction from Public Funds

The value of contracts awarded and force-account work started during July 1940, June 1940, and July 1939 on construction projects financed wholly or partially from various Federal funds is shown in table 7.

TABLE 7.—*Value of Contracts Awarded and Force-Account Work Started on Construction Projects Financed From Federal Funds, June and July 1940 and July 1939*¹

Federal agency	Contracts awarded and force-account work started		
	July 1940	June 1940 ²	July 1939 ²
Total.....	\$791, 184, 887	\$340, 232, 817	\$313, 126, 550
Public Works Administration:			
Federal.....	354, 894	441, 389	1, 432, 106
Non-Federal:			
N. I. R. A.....	7, 340	60, 293	1, 827, 870
E. R. A. A.....	168, 829	299, 452	1, 422, 357
P. W. A. A.....	1, 331, 754	2, 987, 847	38, 986, 599
Federal agency projects under the WPA.....	17, 867, 847	52, 056	21, 317, 300
Regular Federal appropriations.....	757, 047, 806	329, 618, 371	224, 516, 961
United States Housing Authority.....	14, 406, 417	6, 773, 409	23, 623, 357

¹ Preliminary, subject to revision.

² Revised.

The value of public-building and highway construction awards financed wholly from appropriations from State funds, as reported by the various State governments for July 1940, June 1940, and July 1939 is shown in the following statement:

	Public buildings	Highway construction
July 1940.....	\$1,380,924	\$15,254,673
June 1940.....	5,366,844	12,595,487
July 1939.....	242,980	4,599,659

Wholesale Prices

WHOLESALE PRICES IN JULY 1940 ¹

WHOLESALE commodity prices turned moderately upward during July and rose 0.3 percent from the year's low point reached in June. Higher prices for livestock, meats, hides, and cattle feed, together with a sharp advance in prices of alcohol, largely accounted for the advance. The increase brought the all-commodity index to 77.7 percent of the 1926 level, a gain of over 3 percent from July a year ago.

The chemicals and allied products group index rose 1.2 percent during the month, farm products and miscellaneous commodities increased 0.5 percent; metals and metal products, 0.4 percent; and building materials, 0.3 percent. Fuel and lighting materials, on the contrary, declined 0.4 percent; textile products dropped 0.3 percent; and hides and leather products, 0.2 percent. The indexes for the foods and housefurnishing goods groups remained unchanged at the June level.

Each of the group indexes, except fuel and lighting materials, is substantially higher than it was a year ago. Hides and leather products and textile products show the greatest increase, 7 percent. Farm products and miscellaneous commodities increased about 6 percent; foods, 4 percent; building materials, chemicals and allied products, and housefurnishing goods, more than 3 percent; and metals and metal products, 2 percent. Fuel and lighting materials decreased 2.3 percent from a year ago.

The index for the raw materials group remained unchanged from June, 70.7 percent of the 1926 average. Semimanufactured commodities declined slightly and manufactured commodities on the other hand advanced 0.5 percent. Nonagricultural and industrial commodity prices rose moderately according to the indexes for "All commodities other than farm products" and "All commodities other than farm products and foods."

Wholesale commodity prices fluctuated within narrow limits during July. Slightly lower prices for hides and leather products, textile products, and fuel and lighting materials were outbalanced by moderately higher prices for farm products, metals and metal products,

¹ More detailed information on wholesale prices is given in the Wholesale Price pamphlet and will be furnished upon request.

building materials, chemicals and allied products, and miscellaneous commodities causing the all-commodity index to advance 0.3 percent.

An advance of 7.9 percent in livestock and poultry prices, particularly hogs, was mainly responsible for the increase of 0.5 percent in the farm products group index. In addition to a rise of nearly 22 percent in prices of hogs, prices of calves, steers, and poultry also advanced. Other farm product items which averaged higher were rye, eggs, fresh milk (Chicago), peanuts, and sweetpotatoes. Lower prices were reported for barley, corn, oats, wheat, cows, and sheep. Declines also occurred in prices for cotton, apples, lemons, oranges, hay, hops, seeds, beans, onions, potatoes, and wool.

In the food group, weakening prices for cereal products and fruits and vegetables were counterbalanced by higher prices for dairy products and meats and the group index remained unchanged at 70.3 percent of the 1926 average. Marked decreases were recorded in prices for oatmeal, flour, macaroni, crackers, fresh fruits, and vegetables, prunes, canned and dried peaches, lamb, dressed poultry, cocoa beans, coffee, cornstarch, sugar, vinegar, and corn and soybean oils. Prices were higher for butter, cheese, milk, hominy grits, corn meal, most canned fruits, fresh beef, mutton, fresh and cured pork, glucose, lard, edible tallow, and cottonseed, olive, and peanut oils.

Lower prices for leather, goatskins, shoes, and luggage caused the hide and leather products group index to drop 0.2 percent during July. Hides and calf and sheepskins advanced.

The textile products group index fell 0.3 percent to the low point of the year, because of lower prices for raw silk, silk yarns, burlap, hemp, jute, denim, cotton flannel, sateen, ticking, tire fabrics, hosiery, and underwear. Most cotton goods, linen shoe thread, and worsted yarns advanced.

In the fuel and lighting materials group falling prices for Pennsylvania crude petroleum, kerosene, and California gasoline more than offset higher prices for coal, causing the group index to decline 0.4 percent.

The advance of 0.4 percent in the metals and metal products group index was largely the result of sharp increases in prices for ferromanganese, spiegeleisen, concrete reinforcing bars, and wood screws together with moderate price increases for manufactured products of brass and zinc. Farm machinery prices averaged lower in July and prices were down also for scrap steel, babbitt metal, quicksilver, bar silver, solder, and pig tin.

Higher prices for yellow pine and Douglas fir lumber, red cedar shingles, millwork, glass, sand, lime, and paint materials, such as carbon black, tung oil, shellac, and turpentine, accounted for an advance of 0.3 percent in the building materials group index. Quotations

were lower for gum, Ponderosa pine and spruce lumber, butyl and ethyl acetate, linseed oil, rosin, gravel, and prepared roofing.

The chemicals and allied products group index rose 1.2 percent to the highest level reached since March because of marked advances in prices for arsenic, cream of tartar, toluene, ethyl alcohol, caffeine, iodine, ammonia sulphate, potash, and tankage. Lower prices were reported for acetone, butyl alcohol, benzene, tin tetrachloride, castor oil, ergot, and most fats and oils.

A minor advance in prices for bedding did not affect the house-furnishing goods group index. It remained unchanged at 88.5 percent of the 1926 average.

In the miscellaneous commodities group prices averaged higher for automobile tires and tubes, cattle feed, boxboard, paper and pulp, and cigarettes. Crude rubber, on the contrary, declined 4.5 percent and prices were lower also for cylinder oils, soap, and wax.

Index numbers for the groups and subgroups of commodities for June and July 1940 and July 1939 and the percentage changes from a month ago and a year ago are shown in table 1.

TABLE 1.—*Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, July 1940, With Comparisons for June 1940 and July 1939*

[1926=100]

Group and subgroup	July 1940	June 1940	Change from a month ago	July 1939	Change from a year ago
			Percent		Percent
All commodities	77.7	77.5	+0.3	75.4	+3.1
Farm products	66.5	66.2	+5	62.6	+6.2
Grains.....	60.8	64.4	-5.6	52.3	+16.3
Livestock and poultry.....	69.8	64.7	+7.9	69.7	+1
Other farm products.....	65.6	67.0	-2.1	60.7	+8.1
Foods	70.3	70.3	0	67.5	+4.1
Dairy products.....	73.7	72.2	+2.1	64.6	+14.1
Cereal products.....	76.2	77.4	-1.6	71.9	+6.0
Fruits and vegetables.....	69.0	73.9	-6.6	62.0	+11.3
Meats.....	72.9	70.7	+3.1	75.3	-3.2
Other foods.....	61.3	61.3	0	60.4	+1.5
Hides and leather products	99.0	99.2	-.2	92.5	+7.0
Shoes.....	107.0	107.9	-.8	100.8	+6.2
Hides and skins.....	84.6	81.9	+3.3	76.9	+10.0
Leather.....	91.4	92.4	-1.1	84.1	+8.7
Other leather products.....	99.7	100.0	-.3	95.6	+4.3
Textile products	72.4	72.6	-.3	67.6	+7.1
Clothing.....	85.3	85.3	0	81.2	+5.0
Cotton goods.....	68.8	68.4	+6	65.1	+3.7
Hosiery and underwear.....	61.5	61.6	-.2	60.2	+2.2
Rayon.....	29.5	29.5	0	28.5	+3.5
Silk.....	43.3	46.1	-6.1	45.0	-3.8
Woolen and worsted goods.....	83.9	83.7	+2	75.4	+11.3
Other textile products.....	73.0	74.0	-1.4	64.1	+13.9
Fuel and lighting materials	71.1	71.4	-.4	72.8	-2.3
Anthracite.....	78.1	77.1	+1.3	72.6	+7.6
Bituminous coal.....	95.8	95.7	+1	95.8	0
Coke.....	109.6	109.6	0	104.2	+5.2
Electricity.....	(¹)	74.2	-----	78.1	-----
Gas.....	88.2	87.4	+9	89.0	-.9
Petroleum and products.....	49.5	50.0	-1.0	52.2	-5.2

¹ Data not yet available.

TABLE 1.—Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities, July 1940, With Comparisons for June 1940 and July 1939—Continued

[1926=100]

Group and subgroup	July 1940	June 1940	Change from a month ago	July 1939	Change from a year ago
			Percent		Percent
Metals and metal products	95.1	94.7	+ .4	93.2	+2.0
Agricultural implements.....	92.4	92.5	— .1	93.4	—1.1
Farm machinery.....	93.5	93.6	— .1	94.7	—1.3
Iron and steel.....	94.6	94.3	+ .3	95.1	— .5
Motor vehicles ¹	95.6	94.8	+ .8	93.0	+2.8
Nonferrous metals.....	80.8	81.2	— .5	73.3	+10.2
Plumbing and heating.....	80.5	80.5	0	79.3	+1.5
Building materials	92.7	92.4	+ .3	89.7	+3.3
Brick and tile.....	90.1	90.2	— .1	90.6	— .6
Cement.....	90.6	90.6	0	91.5	—1.0
Lumber.....	96.7	96.0	+ .7	91.8	+5.3
Paint and paint materials.....	84.6	85.2	— .7	82.2	+2.9
Plumbing and heating.....	80.5	80.5	0	79.3	+1.5
Structural steel.....	107.3	107.3	0	107.3	0
Other building materials.....	93.6	93.0	+ .6	89.6	+4.5
Chemicals and allied products	77.0	76.1	+1.2	74.5	+3.4
Chemicals.....	84.9	85.1	— .2	83.9	+1.2
Drugs and pharmaceuticals.....	95.9	82.2	+16.7	77.2	+24.2
Fertilizer materials.....	67.3	67.4	— .1	65.3	+3.1
Mixed fertilizers.....	72.8	72.8	0	72.8	0
Oils and fats.....	43.0	45.1	—4.7	43.2	— .5
Housefurnishing goods	88.5	88.5	0	85.6	+3.4
Furnishings.....	94.8	94.9	— .1	90.0	+5.3
Furniture.....	81.8	81.7	+ .1	81.0	+1.0
Miscellaneous	77.7	77.3	+ .5	73.4	+5.9
Automobile tires and tubes.....	58.8	58.2	+1.0	60.5	—2.8
Cattle feed.....	83.2	80.0	+4.0	72.4	+14.9
Paper and pulp.....	93.5	91.7	+2.0	79.9	+17.0
Rubber, crude.....	44.2	46.3	—4.5	34.7	+27.4
Other miscellaneous.....	83.5	83.7	— .2	81.3	+2.7
Raw materials	70.7	70.7	0	67.8	+4.3
Semimanufactured articles.....	77.8	77.9	— .1	74.4	+4.6
Manufactured products	80.9	80.5	+ .5	79.2	+2.1
All commodities other than farm products.....	80.0	79.8	+ .3	78.1	+2.4
All commodities other than farm products and foods.....	82.3	82.2	+ .1	80.2	+2.6

¹ Preliminary revision.*Index Numbers by Commodity Groups, 1926 to July 1940*

Index numbers of wholesale prices by commodity groups for selected years from 1926 to 1939, inclusive, and by months from July 1939 to July 1940, inclusive, are shown in table 2.

TABLE 2.—Index Numbers of Wholesale Prices by Groups of Commodities
[1926=100]

Year and month	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting	Metals and metal products	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous	All commodities
By years:											
1926.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1929.....	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	95.3
1932.....	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	64.8
1933.....	51.4	60.5	80.9	64.8	66.3	79.8	77.0	72.1	75.8	62.5	65.9
1936.....	80.9	82.1	95.4	71.5	76.2	87.0	86.7	78.7	81.7	70.5	80.8
1937.....	86.4	85.5	104.6	76.3	77.6	95.7	95.2	82.6	89.7	77.8	86.3
1938.....	68.5	73.6	92.8	66.7	76.5	95.7	90.3	77.0	86.8	73.3	78.6
1939.....	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	77.1
By months:											
1939:											
July.....	62.6	67.5	92.5	67.6	72.8	93.2	89.7	74.5	85.6	73.4	75.4
August.....	61.0	67.2	92.7	67.8	72.6	93.2	89.6	74.2	85.6	73.3	75.0
September.....	68.7	75.1	98.5	71.7	72.8	94.8	90.9	76.6	86.6	76.6	79.1
October.....	67.1	73.3	104.6	75.5	73.9	95.8	92.8	77.6	87.8	77.6	79.4
November.....	67.3	72.3	104.0	76.4	74.1	96.0	93.0	77.4	88.4	77.0	79.2
December.....	67.6	71.9	103.7	78.0	72.8	96.0	93.0	77.7	88.5	77.4	79.2
1940:											
January.....	69.1	71.7	103.6	77.9	72.7	95.8	93.4	77.7	87.9	77.7	79.4
February.....	68.7	71.1	102.4	75.4	72.4	95.3	93.2	77.5	88.0	77.3	78.7
March.....	67.9	70.2	101.8	74.0	72.2	95.5	93.3	77.0	88.0	76.9	78.4
April.....	69.4	71.6	101.8	72.9	71.8	94.5	92.5	76.8	88.4	77.7	78.6
May.....	67.9	71.4	101.3	72.9	71.7	94.5	92.5	76.7	88.5	77.7	78.4
June.....	66.2	70.3	99.2	72.6	71.4	94.7	92.4	76.1	88.5	77.3	77.5
July.....	66.5	70.3	99.0	72.4	71.1	95.1	92.7	77.0	88.5	77.7	77.7

The price trend for specified years and months since 1926 is shown in table 3 for the following groups of commodities: Raw materials, semimanufactured articles, manufactured products, commodities other than farm products, and commodities other than farm products and foods. The list of commodities included under the classifications "Raw materials," "Semimanufactured articles," and "Manufactured products" was given in Serial No. R. 1069, Wholesale Prices, December and Year 1939.

TABLE 3.—Index Numbers of Wholesale Prices, by Special Groups of Commodities
[1926=100]

Year and month	Raw materials	Semi-manufactured articles	Manufactured products	All commodities other than farm products	All commodities other than farm products and foods
By years:					
1926.....	100.0	100.0	100.0	100.0	100.0
1929.....	97.5	93.9	94.5	93.3	91.6
1932.....	55.1	59.3	70.3	68.3	70.2
1933.....	56.5	65.4	70.5	69.0	71.2
1936.....	79.9	75.9	82.0	80.7	79.6
1937.....	84.8	85.3	87.2	86.2	85.3
1938.....	72.0	75.4	82.2	80.6	81.7
1939.....	70.2	77.0	80.4	79.5	81.3
By months:					
1939:					
July.....	67.8	74.4	79.2	78.1	80.2
August.....	66.5	74.5	79.1	77.9	80.1
By months—Con.					
1939—Con.					
September.....	72.6	81.8	81.9	81.3	82.1
October.....	72.3	83.1	82.3	82.0	83.8
November.....	72.4	82.1	82.0	81.6	84.0
December.....	73.3	82.0	81.7	81.6	83.9
1940:					
January.....	73.8	81.7	81.7	81.5	83.9
February.....	72.7	79.9	81.4	80.8	83.2
March.....	72.0	79.7	81.1	80.5	82.9
April.....	73.0	78.2	81.2	80.5	82.5
May.....	72.0	78.3	81.3	80.5	82.5
June.....	70.7	77.9	80.5	79.8	82.2
July.....	70.7	77.8	80.9	80.0	82.3

Weekly Fluctuations

Weekly fluctuations in the major commodity group classifications during June and July are shown by the index numbers in table 4.

TABLE 4.—*Weekly Index Numbers of Wholesale Prices by Commodity Groups, June and July 1940*

[1926=100]

Commodity group	July 27	July 30	July 13	July 6	June 29	June 22	June 15	June 8	June 1
All commodities.....	77.3	77.6	77.9	77.5	77.1	77.1	77.4	77.4	77.8
Farm products.....	66.0	67.3	68.0	66.7	65.7	65.6	66.8	66.7	67.8
Foods.....	69.6	70.4	71.0	70.4	69.7	70.1	70.2	70.5	70.8
Hides and leather products.....	99.0	99.9	99.9	100.3	99.9	99.6	99.6	99.6	100.5
Textile products.....	71.8	71.9	72.0	71.9	72.0	71.9	71.8	71.9	72.2
Fuel and lighting materials.....	71.8	71.8	71.9	72.0	71.9	71.9	72.2	72.2	72.3
Metals and metal products.....	94.9	94.9	94.9	94.9	94.8	94.8	94.9	94.8	94.7
Building materials.....	92.7	92.8	92.7	92.6	92.4	92.3	92.4	92.1	92.5
Chemicals and allied products.....	76.8	76.9	77.0	77.1	76.0	76.3	76.4	76.4	76.6
Housefurnishing goods.....	90.0	90.0	90.0	90.0	89.9	89.9	89.9	89.9	89.9
Miscellaneous.....	77.7	77.3	77.2	77.0	76.9	77.2	77.2	77.0	76.9
Raw materials.....	70.0	70.8	71.4	70.7	70.2	70.2	70.9	70.7	71.4
Semimanufactured articles.....	77.5	77.8	77.8	78.0	77.8	77.9	77.8	77.7	78.0
Manufactured products.....	81.0	81.1	81.2	80.9	80.6	80.6	80.7	80.9	81.1
All commodities other than farm products.....	79.8	79.9	80.1	79.9	79.6	79.7	79.7	79.8	80.0
All commodities other than farm products and foods.....	82.4	82.4	82.4	82.4	82.3	82.4	82.4	82.4	82.5

Retail Prices

FOOD PRICES IN JULY 1940

THE average retail cost of food declined 0.9 percent between June 18 and July 16 as a result of seasonal declines in the costs of fresh fruits and vegetables and lower prices of flour and sugar.

The July index for all foods was 97.4 percent of the 1935-39 average, an increase of 3.3 percent over a year ago when the index stood at 94.3. The greatest increase shown for any of the major commodity groups since July 1939 was 7.6 percent for dairy products. Smaller increases were shown for fruits and vegetables, cereals and bakery products, meats, eggs, and sugar, while declines were shown for two commodity groups—fats and oils and beverages.

Details by Commodity Groups

The cost of cereals and bakery products declined slightly between June and July as prices of flour continued to fall, decreases being reported for 38 cities. The average retail price of flour for all cities was 18 percent higher than for a year ago. Over the same period, the price of white bread increased 2.5 percent. Between June and July, slightly higher prices were reported for white bread in 4 cities and lower in 2, but the net change was not large enough to affect the average price for 51 cities combined. Prices of all other items in the group remained unchanged except soda crackers which declined less than 1 percent.

Meat costs, continuing the steady advance which began in March of this year, were almost 10 percent higher in July than in February 1940 and were 1.4 percent higher than a year ago. The higher costs for the month were due in part to a seasonal movement of the pork and beef items. Pork chops advanced sharply by 15.7 percent and cured pork, including sliced bacon, whole ham, and salt pork, rose 2.3 percent. Fresh pork was 4 percent lower and cured pork about 15 percent lower than for the same period last year. Prices of round steak, rib roast, and chuck roast were higher in July than at any time since early last fall, with increases during the month of 4.7 percent, 2.8 percent, and 3.5 percent, respectively. The beef items were 3 percent higher on the average than a year ago. Prices of pink salmon continued to advance, showing a 25 percent increase for the year, while prices of

lamb and fresh fish declined about 3 percent and roasting chickens, 1 percent between June and July.

The average cost of dairy products rose seasonally 0.6 percent as a result of higher prices for butter, cheese, and evaporated milk. Butter prices were higher in 37 cities, resulting in an increase of about 1 percent for the country as a whole. They were 11 percent higher than a year ago. This last month, the average price of milk remained unchanged and was about 7 percent higher than in July 1939. Prices of cheese rose 1.2 percent for the month and evaporated milk, 1.4 percent.

Egg prices, following the usual seasonal movement, advanced more than 12 percent to a point only slightly higher than for the same period last year.

Costs of fruits and vegetables declined, as usual, in July by 9.2 percent, due to reduced prices for all items in the group except bananas, spinach, and sweetpotatoes. Prices of apples, green beans, cabbage, carrots, onions, and potatoes moved seasonally, with decreases ranging from 8.3 percent for apples to 19.4 percent for cabbage. Prices of these items were from 10 to 50 percent higher than a year ago, with the exception of cabbage and potatoes which were about 10 percent lower. Prices of oranges and lettuce, which usually rise in July, declined 6.6 percent and 29.2 percent, respectively, for the month, while spinach and sweetpotatoes moved upward in season, showing sharp advances of 20.0 percent and 15.8 percent. Banana prices were unchanged. Costs of canned and dried fruits and vegetables showed no change with the exception of an increase of less than 1 percent for canned pineapple.

Prices of coffee and tea were the same in July as in June, but coffee was 4.5 percent lower and tea 1.7 percent higher than a year ago.

Costs for fats and oils advanced 0.1 percent due to an increase of about 1 percent in the average price of lard, partially offset by lower prices for salad dressing and peanut butter. Lard prices were nearly 9 percent lower than for the same period last year. No change was reported for oleomargarine and shortening other than lard between June and July.

The index for sugar fell 1.2 percent to the lowest point since August 1939 as a result of declines in 48 of the 51 cities.

Indexes of retail food costs for July and June 1940 and July 1939 are shown in table 1. The accompanying chart on the 1935-39 base shows the trend in the cost of all foods and of each major commodity group for the period January 1929 to July 1940, inclusive.

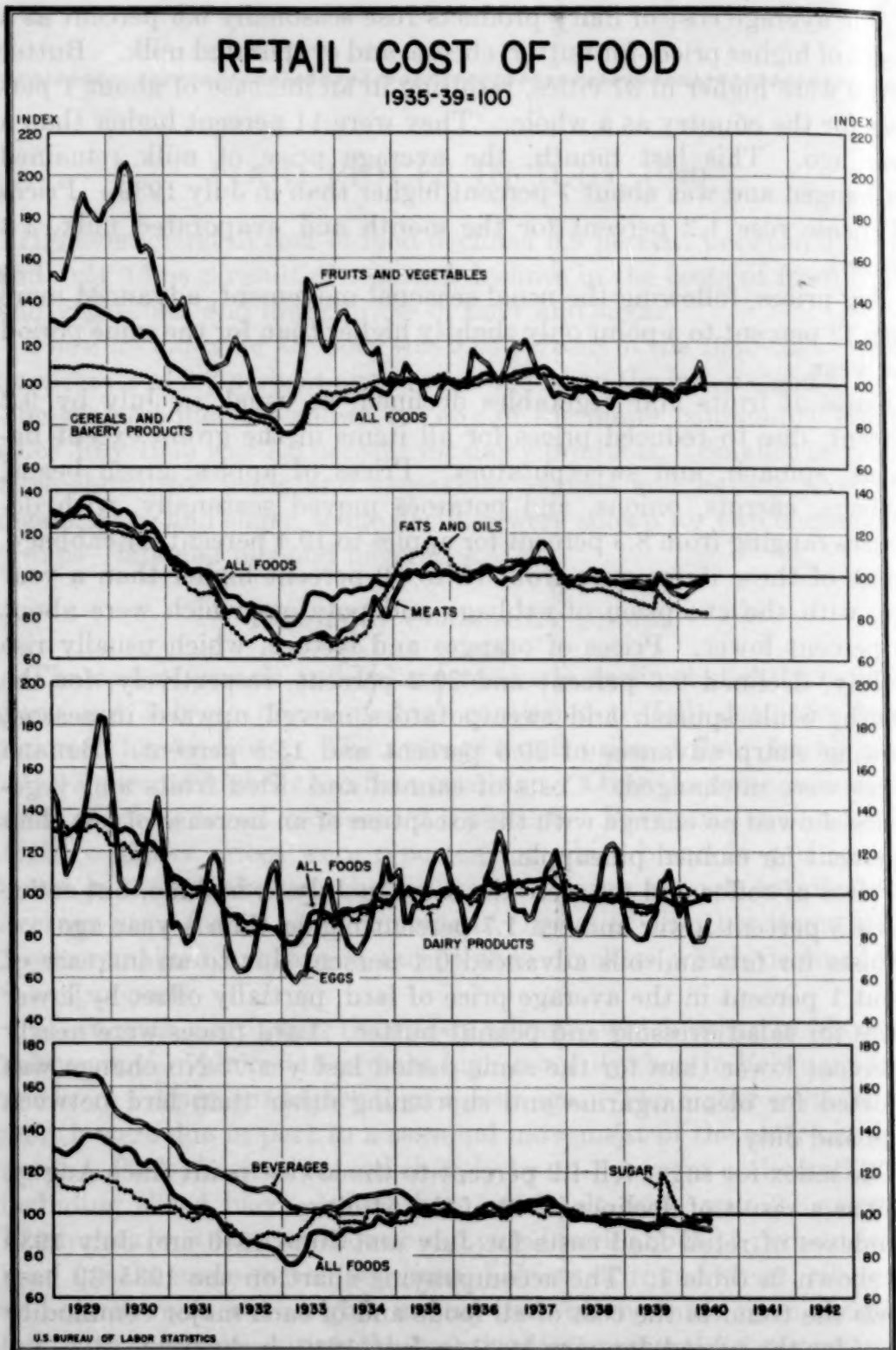


TABLE 1.—*Indexes of Retail Food Costs in 51 Large Cities Combined,¹ by Commodity Groups, July and June 1940 and July 1939*

[1935-39=100]

Commodity group	1940		1939,
	July 16 ²	June 18	July 18
All foods.....	97.4	98.3	94.3
Cereals and bakery products.....	97.4	97.7	94.0
Meats.....	98.6	96.0	97.2
Dairy products.....	98.8	98.2	91.8
Eggs.....	87.8	77.9	86.9
Fruits and vegetables.....	100.4	110.6	95.7
Fresh.....	102.2	115.7	97.1
Canned.....	92.7	92.7	91.5
Dried.....	100.9	100.9	90.2
Beverages.....	92.8	92.8	95.0
Fats and oils.....	82.1	82.0	85.4
Sugar.....	96.1	97.3	95.7

¹ Aggregate costs of 54 foods in each city weighted to represent total purchases of families of wage earners and lower salaried workers have been combined with the use of population weights. (A discussion of the revision of the retail food-cost indexes will be found in the May 1940 issue of Retail Prices.)

² Preliminary.

Prices of 16 of the 54 foods included in the index were lower in July than in June, 18 were higher, and for 20 there was no change. Compared with a year ago, 17 of 52 foods were lower, 32 were higher, and for 3 there was no change. No yearly comparison can be made for vanilla cookies or salad dressing as they were not priced a year ago. Average prices of each of the 63 foods for 51 cities combined are shown in table 2 for June and July 1940 and July 1939.

TABLE 2.—*Average Retail Prices of 63 Foods in 51 Large Cities Combined,¹ July and June 1940 and July 1939*

Article	1940		1939
	July 16 ²	June 18	July 18
Cereals and bakery products:			
Cereals:	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Flour, wheat.....10 pounds.....	42.6	43.9	36.1
Macaroni.....pound.....	14.1	14.1	14.1
Wheat cereal ³.....28-oz. pkg.....	23.7	23.7	24.1
Corn flakes.....8-oz. pkg.....	7.2	7.2	7.1
Corn meal.....pound.....	4.2	4.2	4.0
Rice ³.....do.....	7.9	7.9	7.6
Rolled oats ³.....do.....	7.2	7.2	7.1
Bakery products:			
Bread, white.....do.....	8.1	8.1	7.9
Bread, whole-wheat.....do.....	9.0	9.0	9.0
Bread, rye.....do.....	9.5	9.5	9.2
Vanilla cookies.....do.....	25.0	25.0	-----
Soda crackers.....do.....	15.0	15.1	14.9
Meats:			
Beef:			
Round steak.....do.....	37.8	36.1	36.7
Rib roast.....do.....	29.3	28.5	29.4
Chuck roast.....do.....	23.5	22.7	22.9
Veal:			
Cutlets.....do.....	42.4	42.2	42.3
Pork:			
Chops.....do.....	30.9	26.7	32.2
Bacon, sliced.....do.....	26.4	26.1	30.9
Ham, sliced ³.....do.....	43.6	42.9	46.7
Ham, whole.....do.....	24.5	23.8	27.8
Salt pork.....do.....	14.0	13.7	16.2

See footnotes at end of table.

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TABLE 2.—Average Retail Prices of 63 Foods in 51 Large Cities Combined, July and June 1940 and July 1939—Continued

Article	1940		1939
	July 16	June 18	July 18
Meats—Continued.			
Lamb:			
Leg.....pound.....	Cents 29.1	Cents 30.2	Cents 29.3
Rib chops.....do.....	38.2	39.2	38.8
Poultry:			
Roasting chickens.....do.....	33.1	33.4	31.2
Fish:			
Fresh, frozen.....do.....	(⁵)	(⁵)	(⁵)
Salmon, pink.....16-oz. can.....	15.8	15.7	12.7
Salmon, red ¹.....do.....	25.8	25.7	22.9
Dairy products:			
Butter.....pound.....	33.9	33.6	30.5
Cheese.....do.....	25.6	25.3	24.8
Milk, fresh (delivered).....quart.....	12.6	12.6	11.8
Milk, fresh (store).....do.....	11.3	11.3	10.7
Milk, fresh (delivered and store) ¹.....do.....	12.2	12.1	11.4
Milk, evaporated.....14½-oz. can.....	7.0	6.9	6.7
Eggs.....dozen.....	30.9	27.5	30.6
Fruits and vegetables:			
Fresh:			
Apples.....pound.....	6.6	7.2	5.4
Bananas.....do.....	6.4	6.4	6.2
Oranges.....dozen.....	31.0	33.2	30.6
Beans, green.....pound.....	7.6	8.7	6.8
Cabbage.....do.....	2.9	3.6	3.2
Carrots.....bunch.....	6.4	7.2	4.8
Lettuce.....head.....	7.5	10.6	8.4
Onions.....pound.....	5.8	6.9	3.9
Potatoes.....15 pounds.....	36.8	44.6	40.5
Spinach.....pound.....	6.0	5.0	6.8
Sweetpotatoes.....do.....	6.6	5.7	6.1
Canned:			
Peaches.....No. 2½ can.....	17.2	17.2	17.0
Pineapple.....do.....	21.0	20.9	21.0
Beans, green ¹.....No. 2 can.....	10.0	10.0	10.0
Corn.....do.....	10.5	10.5	10.2
Peas.....do.....	13.7	13.7	13.6
Tomatoes.....do.....	8.5	8.5	8.6
Dried:			
Prunes.....pound.....	9.8	9.8	8.8
Navy beans.....do.....	6.6	6.6	5.8
Beverages:			
Coffee.....do.....	21.3	21.3	22.3
Tea.....¾ pound.....	17.5	17.5	17.2
Cocoa ¹.....8-oz. can.....	9.1	9.1	8.6
Fats and oils:			
Lard.....pound.....	9.3	9.2	10.2
Shortening, other than lard:			
In cartons.....do.....	11.8	11.8	11.6
In other containers.....do.....	19.2	19.2	20.2
Salad dressing.....pint.....	20.7	20.8	(⁵)
Oleomargarine.....pound.....	16.0	16.0	16.4
Peanut butter.....do.....	18.0	18.1	17.9
Sugar and sweets:			
Sugar.....10 pounds.....	51.7	52.3	51.8
Corn sirup ¹.....24-oz. can.....	13.6	13.5	13.7
Molasses ¹.....18-oz. can.....	13.4	13.4	13.6

¹ Since September 1939, supermarket prices have been substituted for those of certain service stores.² Preliminary.³ Not included in index. Prices for these items for July 1939 are weighted averages.⁴ Revised.⁵ Composite prices not computed.⁶ Effective January 1940, salad dressing replaced mayonnaise in the food-cost index.

Details by Cities

Three of the thirty-five cities with lower food costs showed declines of 2 percent or more. The greatest decrease, 2.5 percent, was reported for New York, followed by Columbus, 2.3 percent, and Denver, 2.1 percent. Greater than average declines for fresh fruits and vegetables were largely responsible for lower costs in the three

cities. Reduced prices for meats in New York, flour and white bread in Columbus, and flour in Denver, also contributed to the decreases.

Norfolk and Dallas were the only two cities in which food costs increased 1 percent or more. An advance of 1.9 percent in Norfolk resulted from higher than average increases for meats and negligible decreases for fresh fruits and vegetables. The increase of 1.1 percent in Dallas was due to increased costs for meats, eggs, fresh and dried fruits and vegetables, and only slight declines for the other commodities.

Indexes of food costs by cities are presented in table 3 for July and June 1940 and July 1939.

TABLE 3.—*Indexes of the Average Retail Cost of All Foods, by Cities,¹ July and June 1940 and July 1939*

[1935-39=100]

Region and city	1940		1939	Region and city	1940		1939
	July 16 ²	June 18	July 18		July 16 ²	June 18	July 18
United States.....	97.4	98.3	94.3	South Atlantic:			
New England:				Atlanta.....	93.1	93.2	93.4
Boston.....	98.1	98.9	96.0	Baltimore.....	97.8	98.7	97.1
Bridgeport.....	98.1	³ 98.5	94.8	Charleston, S. C.....	96.6	³ 95.8	96.1
Fall River.....	99.2	100.3	96.3	Jacksonville.....	100.8	³ 100.2	98.4
Manchester.....	99.4	99.8	96.9	Norfolk.....	96.4	94.7	93.8
New Haven.....	97.2	98.6	95.0	Richmond.....	93.4	92.7	92.8
Portland, Maine.....	97.2	96.9	94.7	Savannah.....	99.3	99.6	97.5
Providence.....	98.7	99.5	94.9	Washington, D. C.....	98.7	98.3	95.1
Middle Atlantic:				East South Central:			
Buffalo.....	99.6	100.1	96.0	Birmingham.....	92.6	92.0	90.2
Newark.....	100.2	101.0	96.0	Louisville.....	94.6	95.2	92.4
New York.....	98.6	101.1	95.3	Memphis.....	91.9	³ 92.7	91.1
Philadelphia.....	95.7	95.9	93.7	Mobile.....	98.0	97.3	95.2
Pittsburgh.....	97.4	98.0	93.1	West South Central:			
Rochester.....	100.1	101.6	93.7	Dallas.....	92.2	91.2	90.0
Scranton.....	98.1	98.3	93.9	Houston.....	98.8	97.9	97.7
East North Central:				Little Rock.....	95.8	95.3	91.9
Chicago.....	97.8	³ 99.6	93.7	New Orleans.....	101.5	³ 100.9	97.0
Cincinnati.....	95.0	³ 94.4	91.7	Mountain:			
Cleveland.....	99.1	99.0	96.0	Butte.....	98.6	99.0	95.4
Columbus, Ohio.....	91.8	94.0	89.0	Denver.....	94.2	96.2	94.3
Detroit.....	97.2	98.3	91.9	Salt Lake City.....	100.1	101.0	95.3
Indianapolis.....	95.3	³ 96.6	91.4	Pacific:			
Milwaukee.....	96.8	98.1	92.7	Los Angeles.....	98.2	97.4	95.5
Peoria.....	98.4	100.1	95.1	Portland, Oreg.....	100.1	99.8	96.9
Springfield, Ill.....	97.1	98.2	94.4	San Francisco.....	95.9	96.7	93.7
West North Central:				Seattle.....	99.1	99.7	95.0
Kansas City.....	91.4	92.9	92.4				
Minneapolis.....	96.3	97.9	95.8				
Omaha.....	97.2	³ 98.3	92.4				
St. Louis.....	97.1	97.5	93.1				
St. Paul.....	95.6	97.2	94.8				

¹ Aggregate costs of 54 foods in each city, weighted to represent total purchases of families of wage earners and lower salaried workers have been combined for the United States with the use of population weights. (A discussion on the revision of the retail food-cost indexes will be found in the May 1940 issue of Retail Prices.)

² Preliminary.

³ Revised.

COAL PRICES IN JUNE 1940

AS IS usual at this season of the year, decreases in average prices between March and June were shown for bituminous coal, Arkansas

anthracite, and all sizes of Pennsylvania anthracite except buckwheat for which a slight advance was recorded. Compared with June 1939, a general increase was shown for all sizes of Pennsylvania anthracite and for Arkansas and New Mexico anthracite. Bituminous-coal prices were, however, below the level of a year ago.

The average price of bituminous coal for 38 cities was 5.8 percent lower in June than in March, and 1.6 percent lower than in June 1939. Decreases for the 3-month period were greater and more general for low-volatile and eastern high-volatile coals than for western high volatile.

Prices of stove, chestnut, and pea sizes of Pennsylvania anthracite for 25 cities declined less between March and June than is usual for this season of the year, while the average price of buckwheat advanced 2.0 percent. The decreases were 2.6 percent for stove, 2.9 percent for chestnut, and 2.4 percent for pea. A decrease of 3.0 percent for Arkansas anthracite in the 3-month period resulted from lower prices in seven of the eight reporting cities. The average price in June was 1.7 percent above the level of June 1939. Prices for Colorado and New Mexico anthracite remained unchanged for the 3-month period.

Retail prices of coal, as of the 15th of March, June, September, and December, are collected in 51 cities. Average prices of coal together with indexes for bituminous coal and for stove and chestnut sizes of Pennsylvania anthracite compared with the 3-year period, October 1922 through September 1935 as 100, are presented in table 4 for June and March 1940 and June 1939.

TABLE 4.—Average Retail Prices of Coal in Large Cities Combined, June and March 1940 and June 1939

Kind of coal	Average retail price per ton of 2,000 pounds			Index of retail price (October 1922–September 1935=100)			Percentage change June 15, 1940 compared with—	
	1940		1939	1940		1939	1940	1939
	June 15 ¹	Mar. 15	June 15	June 15 ¹	Mar. 15	June 15	Mar. 15	June 15
Bituminous coal (28 cities), old series ²	\$8.15	\$8.65	\$8.28	83.4	89.0	85.2	-5.8	-1.6
Pennsylvania anthracite (25 cities), new series: ³								
Stove	11.02	11.31	10.47	78.3	80.4	74.4	-2.6	+5.3
Chestnut	11.04	11.37	10.55	78.6	81.0	75.1	-2.9	+4.6
Pea	9.12	9.34	8.57				-2.4	+6.4
Buckwheat	8.09	7.93	7.55				+2.0	+7.2
Western anthracite: ⁴								
Arkansas (8 cities)	12.08	12.45	11.88				-3.0	+1.7
Colorado (1 city)	15.81	15.81	15.81				0	0
New Mexico (1 city)	23.86	23.86	23.69				0	+1.7

¹ Preliminary.

² Unweighted average. Weighted composite prices are in preparation.

³ Weighted on the basis of the distribution by rail and tidewater to each city during the 12-month period from Aug. 1, 1935 to July 31, 1936.

⁴ Revised.

*Details by Kinds of Coal*¹

Bituminous coal.—Prices of one or more kinds of bituminous coal are reported from 47 of the 51 cities. Prices of low-volatile coal from 28 cities and of eastern high-volatile coal from 27 cities are secured from the Atlantic and Central areas. Seventeen of these cities report on both kinds. Western high-volatile coal is represented by prices from 20 cities in the Central and Pacific areas. Nine of these cities do not report for other kinds of bituminous coal.

Prices of low-volatile coal tended downward between March and June in most of the reporting cities, with a few cities showing no change or a slight advance for one size. Reductions were greatest for the larger sizes. In Richmond, egg and stove prices decreased \$1 per ton, and lump and egg prices in Cincinnati were 92 cents lower. Egg coal in Chicago and lump, egg, and stove in Milwaukee declined 90 cents per ton. The only cities reporting generally higher prices were Minneapolis and St. Paul where lump, egg, and stove increased 20 cents per ton and run of mine 10 cents.

Prices for eastern high volatile for June were lower than for March in all of the reporting cities except Rochester, Baltimore, and Charleston, where no change was shown. In Atlanta, where the greatest decreases occurred, the reductions ranged from 57 cents for stoker to \$1.62 per ton for stove. Decreases of \$1 per ton were reported for lump in Jacksonville and for lump, egg, and nut in New Orleans. Reductions for stoker coal were relatively smaller than for other sizes.

There was less change in prices for western high volatile than for other kinds of coal. The greatest decreases were 84 cents per ton for lump in Chicago and Houston and 65 cents for lump and egg in St. Louis. Decreases of 35 cents or less occurred in several other cities, while a slight upward movement for one or more sizes was occasionally noted. The only increases amounting to more than a few cents were in Memphis where prices advanced 25 cents for egg and 19 cents for nut.

Anthracite.—Retail prices of Pennsylvania anthracite are reported from 25 of the 51 cities, Arkansas anthracite from 8 cities, and Colorado and New Mexico anthracite from 1 city each.

Average prices of stove, chestnut, and pea sizes of Pennsylvania anthracite declined between March and June in all reporting cities except Pittsburgh where there was no price change and in Norfolk where stove and chestnut remained unchanged while pea coal declined \$1.00 per ton—the greatest decrease shown for that size. The largest reduction for stove and chestnut, \$1.00 per ton, was reported in Fall River and Richmond. Decreases in other cities for the stove and

¹ A mimeographed report of prices by cities is available upon request.

chestnut sizes were less than 90 cents per ton, with the majority ranging between 20 and 50 cents. Relatively small reductions in prices of buckwheat in 11 cities were more than offset by advances of 22 cents per ton in New York and 25 cents in Boston.

Prices of Arkansas anthracite dropped 50 cents per ton in Minneapolis, St. Paul, Houston, and New Orleans, with lesser decreases for other cities, with the exception of Dallas where there was no change. Prices for New Mexico anthracite showed no change between March and June but were slightly higher than in June 1939. Colorado anthracite prices remained unchanged throughout the year.

Trend of Employment and Pay Rolls

SUMMARY OF REPORTS FOR JULY 1940

Total Nonagricultural Employment

MORE than 130,000 additional workers found employment in nonagricultural industries between mid-June and mid-July. This brought the estimated number of workers in nonagricultural occupations to 35,600,000, which was the maximum reached this year, and about 1,000,000 greater than in the corresponding month of last year.

Employment on private and public building construction continued to rise in July, about 75,000 more workers being employed than in the preceding month. Transportation and public-utility companies added 30,000 workers to their staffs, the major portion of which gain was on steam railroads. A net gain of 7,000 workers was reported in the group of mining industries and factories added about 5,000 workers to their pay rolls. Seasonal summer recessions in retail-trade activity resulted in a net decline of more than 75,000 workers in wholesale and retail trade and a negligible loss was reported in the group of finance, service, and miscellaneous industries.

The above summary excludes emergency employment which, as a result of the following changes, showed a net increase of 16,000: Increases of 68,000 on projects operated by the Work Projects Administration and 34,000 in the Civilian Conservation Corps, and a decrease of 86,000 on the out-of-school work program of the National Youth Administration.

Industrial and Business Employment

Increases in employment were reported by 52 of the 90 manufacturing industries surveyed and 9 of the 16 nonmanufacturing industries covered. Pay-roll gains were shown by 45 of the manufacturing and 7 of the nonmanufacturing industries.

The gain of 0.1 percent or about 9,000 workers in manufacturing industries, while not pronounced, was noteworthy in that factory employment usually declines by about 31,000 workers from June to July. This contraseasonal gain was due in large measure to continued expansion in the war-materials industries. Aircraft firms took on an additional 5,200 workers in July, shipbuilding companies, 3,900, and

plants manufacturing engines, 3,000 workers. Machine-tool plants added 1,800 workers to their forces and firms manufacturing aluminum products and explosives took on nearly 1,000 additional workers.

Other manufacturing industries stimulated directly or indirectly by Government or war orders were iron and steel, with an increase of 19,100 employees; woolen and worsted goods, 13,600; shoes, 12,500; men's clothing, 8,400; and cotton goods, 4,900. The approach of peak-season operations in the canning industry was reflected in the gain of 32,900 workers, which was less than the usual seasonal expansion. Larger-than-seasonal gains, however, were reported in slaughtering and meat packing (3,700) and book and job printing (2,600).

The increase in factory employment was accompanied by a decline of 1.4 percent or about \$2,600,000 in weekly factory pay rolls. July pay rolls are normally reduced by shut-downs for inventory and repairs and the observance of the July 4th holiday. The current payroll decline, however, is not as great as the expected seasonal reduction of 3.7 percent or \$6,900,000.

Wage-rate increases affecting more than 38,000 factory wage earners were reported in July by 223 cooperating establishments. The industries in which the greatest number of workers was affected were electrical machinery (11,700), shipbuilding (2,900), paper and pulp (3,500), steel (2,200), and woolen and worsted goods (1,700). As the Bureau's survey does not cover all establishments in an industry and some firms may have failed to report wage changes, the above numbers should not be construed to represent the total number of wage changes occurring in manufacturing industries.

There were about 90,000 fewer workers employed in the automobile and parts plants in July than in the preceding month, the earlier change-over for models this year resulting in a sharper decline than is customarily experienced. Although nearly 14,000 fewer workers were employed in women's clothing factories in July than in June, this decline was not as marked as usual for this season. Other manufacturing industries in which substantial reductions in forces were reported included newspapers, wirework, millinery, shirts and collars, agricultural implements, and cigars and cigarettes.

Employment in the private building construction industry increased 5.3 percent from June to July and weekly pay rolls rose 5.2 percent. The greater-than-seasonal employment increases registered in each of the previous 3 months were continued, the current month's gain being larger than the 4.5 percent increase from June to July 1939 and than the 1.7 percent average July gain of the 1932-39 period. Em-

employment in July 1940 was 10.7 percent above July 1939, and pay rolls were 13.8 percent above the level of a year ago. Increases in private construction were general throughout the country, eight of the nine geographic divisions reporting increased employment. In the Mountain States, employment declined slightly, following the marked increases in previous months. General building contractors increased employment by 7.6 percent while special trades contractors registered a 3.9 percent gain. The more pronounced employment gains in the special trades group were in plastering, 13.9 percent; tile and terrazzo contracting, 8.9 percent; plumbing, 6.2 percent; structural steel erection, 14.1 percent; ornamental metalwork, 7.8 percent; and building insulation, 4.4 percent. Brick and stone contractors reported employment declines of 4.7 percent, painting contractors, 2.1 percent, and glazing contractors, 4.6 percent. The reports on which the building construction figures are based do not cover construction projects financed by the Work Projects Administration, the Public Works Administration, and the Reconstruction Finance Corporation, or by regular appropriations of the Federal, State, or local governments.

In the group of mining industries, anthracite and bituminous-coal mines both reported contraseasonal gains of 1.4 percent. Pay rolls in anthracite mines, however, declined sharply from mid-June to mid-July due in part to the July 4th shutdown, while in the bituminous mines pay rolls registered a greater increase than employment, reflecting increased industrial demands. A slight gain of 0.5 percent in metal mines, which continued the employment gains of the last 3 months, was accompanied by a 5.1 percent loss in pay rolls, which occurred principally in the nonferrous mines. Employment in quarries and nonmetallic mines and in crude-petroleum producing remained virtually unchanged, decreases of one-tenth of 1 percent being reported in each industry. Employment in the telephone and telegraph and in the electric light and power industries increased 1.4 percent, continuing the gains reported each month since the early part of this year, while the number of employees on street railways and busses remained unchanged from the preceding month.

Seasonal losses in employment were reported in year-round hotels and dyeing and cleaning plants, reflecting customary midsummer curtailment. Brokerage houses reduced their personnel by 1.5 percent, while insurance companies reported a small increase (0.7 percent) in employment. In retail trade, the employment decline of 2.7 percent from June to July reflected the usual mid-summer trend. Department stores curtailed employment by 8.5 percent; women's apparel stores, 15.3 percent; shoe stores, 14.1 percent; men's and boy's cloth-

ing, 11.8 percent; and family clothing, 9.4 percent. Among the few retail lines reporting increased employment were dealers in milk and other dairy products, automotive supplies, lumber and building materials, plumbing and heating equipment, cigars, drugs, and ice.

Employment in wholesale trade remained virtually unchanged between mid-June and mid-July, the increase amounting to 0.2 percent. Among the more pronounced percentage increases in employment were 4.4 percent in hardware, 3.7 percent in iron and steel scrap, 1.5 percent in plumbing and heating equipment and supplies, 1.4 percent in metals and minerals, and 1.1 percent in lumber and building materials. Increases of 1 percent or less were reported in such important lines as food, groceries, petroleum products, automotive products, chemicals and drugs, and electrical supplies. Reductions in employment were reported by dealers in dry goods and apparel (0.7 percent), machinery, equipment, and supplies (0.2 percent), furniture and furnishings (0.1 percent), while wholesalers of farm products reduced their forces seasonally by 8.1 percent and assemblers and country buyers by 10.9 percent.

A preliminary report of the Interstate Commerce Commission showed an employment gain by class I railroads of 1.5 percent or nearly 14,300 workers between June and July. The total number employed in July was 1,050,254. Corresponding pay-roll figures were not available when this report was prepared. For June they were \$159,753,638, a decrease of 0.6 percent since May.

Hours and earnings.—The average hours worked per week by manufacturing wage earners were 37.3 in July, a decrease of 0.7 percent since June. The corresponding average hourly earnings were 66.7 cents, a decrease of 0.5 percent from the preceding month. The average weekly earnings of factory workers were \$25.25 a decrease of 1.5 percent since June.

Of the 14 nonmanufacturing industries for which man-hours are available, 4 showed gains in average hours worked per week and 6 showed gains in average hourly earnings. Six of the 16 nonmanufacturing industries surveyed reported gains in weekly earnings.

Employment and pay-roll indexes and average weekly earnings for July 1940 are given in table 1 for all manufacturing industries combined, for selected nonmanufacturing industries, for water transportation, and for class I railroads. Percentage changes over the month and year intervals are also given.

TABLE 1.—Employment, Pay Rolls, and Earnings in All Manufacturing Industries Combined and in Nonmanufacturing Industries, July 1940 (Preliminary Figures)

Industry	Employment			Pay rolls			Average weekly earnings		
	Index, July 1940	Percentage change from—		Index, July 1940	Percentage change from—		Average in July 1940	Percentage change from—	
		June 1940	July 1939		June 1940	July 1939		June 1940	July 1939
All manufacturing industries combined ¹	(1923-25 = 100) 99.5	+0.1	+6.4	(1923-25 = 100) 96.5	-1.4	+14.3	\$25.25	-1.5	+7.4
Class I steam railroads ²	58.8	+1.5	+4.8	(³)	(³)	(³)	(³)	(³)	(³)
Coal mining:	(1929=100)			(1929=100)					
Anthracite ⁴	50.8	+1.4	+13.7	36.4	-10.5	+44.4	23.52	-11.7	+27.0
Bituminous ⁴	84.9	+1.4	+7.0	75.5	+2.1	+17.0	23.65	+7	+9.4
Metalliferous mining	70.6	+5	+16.9	62.1	-5.1	+28.0	27.34	-5.6	+9.5
Quarrying and nonmetallic mining	47.9	-1	+7	43.3	-1.3	+5.9	22.63	-1.1	+5.1
Crude-petroleum production	63.7	-1	-5.3	59.1	+4	-4.6	33.92	+5	+7
Public utilities:									
Telephone and telegraph ⁵	78.9	+1.4	+3.2	102.4	+2.3	+6.0	\$31.75	+9	+2.6
Electric light and power ⁶	92.5	+1.4	+2.8	105.5	+6	+4.3	\$34.75	-8	+1.5
Street railways and busses ⁷	68.5	-(⁸)	-8	70.0	-7	+9	\$33.58	-7	+1.8
Trade:									
Wholesale ⁹	89.7	+2	+2.0	78.5	+1	+3.5	\$30.41	0	+1.5
Retail ⁹	89.4	-2.7	+2.5	83.1	-2.0	+4.5	\$21.68	+8	+2.0
Hotels (year-round) ¹⁰	89.5	-2.7	-8	80.2	-2.3	+1.4	\$15.54	+5	+2.3
Laundries ⁴	102.4	+3	+2.4	90.1	-2.5	+2.4	18.00	-2.8	-(⁸)
Dyeing and cleaning ⁴	108.0	-4.1	+1.4	79.9	-10.8	+3.7	20.06	-7.0	+2.2
Brokerage	(²)	-1.5	+1.6	(²)	-3.3	-3	\$36.05	-1.8	-1.9
Insurance	(²)	+7	+1.4	(²)	+2.0	+4.7	\$37.39	+1.3	+3.2
Building construction	(²)	+5.9	+10.7	(²)	+5.2	+13.8	31.78	-6	+2.7
Water transportation ¹¹	80.5	+3.1	(²)	(²)	(²)	(²)	(²)	(²)	(²)

¹ Revised indexes; adjusted to 1937 Census of Manufactures.² Preliminary; source—Interstate Commerce Commission.³ Not available.⁴ Indexes adjusted to 1935 Census. Comparable series back to January 1929 presented in January 1938 issue of the pamphlet, Employment and Pay Rolls.⁵ Retail-trade indexes adjusted to 1935 Census and public-utility indexes to 1937 Census. Not comparable with indexes published in pamphlets prior to January 1940 or in the Monthly Labor Review prior to April 1940. Revised series available upon request.⁶ Average weekly earnings not strictly comparable with figures published in issues of the pamphlet dated earlier than January 1938, or in the Monthly Labor Review dated earlier than April 1938 (except for the January figures appearing in the March issue), as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.⁷ Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies.⁸ Less than 1/10 of 1 percent.⁹ Indexes adjusted to 1933 Census. Comparable series in November 1934 and subsequent issues of pamphlet or February 1935 and subsequent issues of Monthly Labor Review.¹⁰ Cash payments only; the additional value of board, room, and tips cannot be computed.¹¹ Based on estimates prepared by the U. S. Maritime Commission.

Public Employment

Employment on construction projects financed by the Public Works Administration continued to decline with a further drop of 16,000 in the month ending July 15. Wage payments of \$7,714,000 to the 76,000 workers employed on PWA projects were \$1,591,000 less than in June.

Contractors on low-rent projects of the United States Housing Authority employed an additional 1,000 building-trades workers in the month ending July 15. Pay-roll disbursements of \$5,335,000 to the 51,000 men employed were \$380,000 more than in June.

Sizable gains on public road, ship construction, and dredging projects brought employment on construction projects financed from regular Federal appropriations up to 318,000 for the month ending July 15. Pay rolls of \$34,647,000 were \$2,828,000 more than in the preceding month.

The number of wage earners on construction projects financed by the Reconstruction Finance Corporation rose from 2,100 to 2,200 in the month ending July 15. Pay-roll disbursements totaled \$265,000, an increase of \$5,000 over June.

The return of approximately 68,000 persons to jobs on work relief projects operated by the Work Projects Administration brought employment up to 1,651,000 for the month of July. The number at work, however, was 493,000 less than in July 1939. Pay-roll disbursements of \$95,030,000 were \$1,515,000 less than in June. The number of persons at work on Federal Agency projects under the Work Projects Administration fell 4,000 in July.

The number of workers employed on the out-of-school work program of the National Youth Administration declined 86,000 in July. Because of the end of the school year in June the student work program was inoperative in July.

As a result of the beginning of an enlistment period, employment in camps of the Civilian Conservation Corps rose 34,000 in July. Of the 316,500 on the pay roll 280,100 were enrollees; 1,600, educational advisers; 200, nurses; and 34,600, supervisory and technical employees.

Employment increases were reported in all the regular services of the Federal Government. Of the 1,023,000 employees in the executive service, 138,000 were working in the District of Columbia and 885,000 outside the District. Force-account employees (employees on the pay roll of the United States Government who are engaged on construction projects, and whose period of employment terminates as the project is completed) were 10 percent of the total number of employees in the executive service.

State-financed road projects showed a seasonal increase of 8,000 in July. Of the 198,000 on the pay roll, 62,000 were engaged in the construction of new roads and 136,000 on maintenance. Pay-roll disbursements for both types of road work were \$14,696,000.

A summary of Federal employment and pay-roll data for July is given in table 2.

TABLE 2.—Summary of Employment and Pay Rolls in Regular Federal Services and on Projects Financed Wholly or Partially from Federal Funds, July and June 1940 (Preliminary Figures)

Class	Employment			Payrolls		
	July 1940	June 1940	Percentage change	July 1940	June 1940	Percentage change
Federal services:						
Executive ¹	1,023,341	1,010,519	+1.3	\$154,741,114	\$149,026,957	+3.8
Judicial	2,783	2,468	+13.8	699,287	585,419	+19.5
Legislative	5,985	5,886	+1.7	1,315,833	1,303,166	+1.0
Military	515,822	473,680	+8.9	37,732,671	33,729,173	+11.9
Construction projects:						
Financed by PWA ²	76,042	91,609	-17.0	7,714,121	9,305,085	-17.1
USHA low-rent housing	50,526	49,743	+1.6	5,335,120	4,954,520	+7.7
Financed by RFC ³	2,213	2,095	+5.6	264,726	259,871	+1.9
Financed by regular Federal appropriations	317,691	299,760	+6.0	34,646,957	31,818,888	+8.9
Federal agency projects financed by Works Projects Administration	107,803	112,328	-4.0	4,376,523	5,142,507	-14.9
Projects operated by WPA	1,651,407	1,583,242	+4.3	95,030,429	96,545,418	-2.6
National Youth Administration:						
Student work program ⁴	0	314,539	-100.0	0	2,321,283	-100.0
Out-of-school program	188,029	274,090	-31.4	3,332,612	5,558,254	-40.0
Civilian Conservation Corps	316,548	⁵ 282,896	+11.9	14,146,541	⁵ 13,421,374	+5.4

¹ Includes force-account and supervisory and technical employees shown under other classifications to the extent of 134,071 employees and pay-roll disbursements of \$18,137,390 for July 1940, and 131,475 employees and pay-roll disbursements of \$17,406,799 for June 1940.

² Data covering PWA Projects financed from National Industrial Recovery Act funds, Emergency Relief Appropriation Acts of 1935, 1936, 1937 funds, and Public Works Administration Appropriation Act of 1938 funds are included. These data are not shown under projects financed by the Work Projects Administration. Includes 6,606 wage earners and \$681,795 pay roll for July 1940; 7,456 wage earners and \$716,866 pay roll for June 1940, covering Public Works Administration projects financed from Emergency Relief Appropriation Acts of 1935, 1936, and 1937 funds. Includes 66,769 wage earners and \$6,744,740 pay roll for July 1940; 81,254 wage earners and \$8,299,485 pay roll for June 1940, covering Public Works Administration projects financed from funds provided by the Public Works Administration Appropriation Act of 1938.

³ Includes 1,284 employees and pay-roll disbursements of \$168,404 for July 1940; 1,078 employees and pay-roll disbursements of \$162,325 for June 1940 on projects financed by the RFC Mortgage Co.

⁴ Not in operation during July.

⁵ Revised.

DETAILED REPORTS FOR JUNE 1940

A MONTHLY report on employment and pay rolls is published as a separate pamphlet by the Bureau of Labor Statistics. This gives detailed data regarding employment, pay rolls, working hours, and earnings for the current month for industrial and business establishments and for the various forms of public employment. This pamphlet is distributed free upon request. Its principal contents for the month of June 1940, insofar as industrial and business employment is concerned, are reproduced in this section of the Monthly Labor Review.

Estimates of Nonagricultural Employment

Two sets of estimates of nonagricultural employment have been prepared. The first, "Total nonagricultural employment," given on the first line of table 1, shows the estimated number of persons engaged in gainful work in the United States in nonagricultural industries, including proprietors and firm members, self-employed persons, casual workers, and domestic workers. The second series, which is described as "Employees in nonagricultural establishments," does not include

proprietors, self-employed persons, and domestic or casual workers. Neither set of figures includes persons employed on WPA or NYA projects or enrollees in CCC camps. The estimates for "Employees in nonagricultural establishments" are shown separately for each of seven major industry groups. Tables giving figures for each group, by months, for the period from January 1929 to date are available on request.

The figures represent the number of persons working at any time during the week ending nearest the middle of each month. The totals for the United States have been adjusted to conform to the figures shown by the 1930 Census of Occupations for the number of non-agricultural "gainful workers" less the number shown to have been unemployed for 1 week or more at the time of the census. Separate estimates for "Employees in nonagricultural establishments" are shown in table 2 for each of the 48 States and the District of Columbia for May and June 1940 and June 1939. Tables showing monthly figures for each State from January 1938 to date are available on request. The State figures do not include the armed forces of the United States nor employees on merchant vessels. Certain adjustments have been made in the United States estimates which cannot be made on a State basis, and for this reason the total of the State estimates will not agree exactly with the United States figures even if allowance is made for military, naval, and maritime employment. These estimates are based in large part on industrial censuses and on regular reports of employers to the United States Bureau of Labor Statistics and to other Government agencies such as the Interstate Commerce Commission. Data derived from employers' quarterly reports in connection with "old age and survivors' insurance," and employers' monthly reports in connection with unemployment compensation have been used extensively as a check on estimates derived from other sources, and in some industries they have provided the most reliable information available.

TABLE 1.—*Estimates of Nonagricultural Employment, by Major Groups*

[In thousands]

Industry	June 1940 (preliminary)	May 1940	Change May to June 1940	June 1939	Change June 1939 to June 1940
Total nonagricultural employment ¹	35,486	35,230	+256	34,544	+942
Employees in nonagricultural establishments ²	29,342	29,082	+239	28,400	+921
Manufacturing	9,534	9,502	+32	9,023	+511
Mining	838	845	-7	793	+45
Construction	1,329	1,248	+81	1,334	-5
Transportation and public utilities	2,991	2,956	+35	2,924	+67
Trade	6,156	6,122	+34	6,063	+93
Finance, service, and miscellaneous	4,222	4,194	+28	4,167	+55
Federal, State, and local government, including armed forces	4,272	4,215	+57	4,096	+176

¹ Includes proprietors, firm members, self-employed persons, casual workers, and domestic workers.

² Does not include proprietors, firm members, self-employed persons, casual workers, and domestic workers.

TABLE 2.—Estimated Number of Employees in Nonagricultural Establishments, by States, in Thousands

Excludes proprietors, firm members, self-employed persons, casual workers, domestic workers, the armed forces of the United States, and employees on merchant vessels]

[In thousands]

Geographic division and State	June 1940 (preliminary)	May 1940	Change, May to June 1940		June 1939	Change, June 1939 to June 1940	
			Number	Percentage		Number	Percentage
New England	2,430	2,407	+23	+0.9	2,397	+33	+1.4
Maine.....	187	183	+4	+2.2	193	-6	-2.6
New Hampshire.....	124	123	+1	+0.8	125	-1	-1.4
Vermont.....	77	76	+1	+1.8	74	+3	+4.2
Massachusetts.....	1,257	1,249	+8	+0.6	1,256	+1	(1)
Rhode Island.....	221	218	+3	+1.6	220	+1	+0.6
Connecticut.....	564	558	+6	+0.9	529	+35	+6.6
Middle Atlantic	7,604	7,532	+72	+1.0	7,337	+267	+3.6
New York.....	3,833	3,803	+30	+0.8	3,760	+73	+1.9
New Jersey.....	1,145	1,130	+15	+1.3	1,087	+58	+5.3
Pennsylvania.....	2,626	2,599	+27	+1.0	2,490	+136	+5.5
East North Central	6,639	6,578	+61	+0.9	6,339	+300	+4.8
Ohio.....	1,732	1,705	+27	+1.6	1,658	+74	+4.5
Indiana.....	760	745	+15	+2.0	717	+43	+6.1
Illinois.....	2,192	2,177	+15	+0.7	2,101	+91	+4.4
Michigan.....	1,336	1,340	-4	-0.3	1,250	+86	+6.9
Wisconsin.....	619	611	+8	+1.3	613	+6	+1.1
West North Central	2,337	2,312	+25	+1.0	2,319	+18	+0.7
Minnesota.....	522	512	+10	+1.8	520	+2	+0.3
Iowa.....	398	394	+4	+1.1	399	-1	-0.2
Missouri.....	760	755	+5	+0.7	751	+9	+1.2
North Dakota.....	77	75	+2	+2.7	76	+1	+1.1
South Dakota.....	83	81	+2	+1.4	81	+2	+1.5
Nebraska.....	203	201	+2	+0.8	202	+1	+0.5
Kansas.....	294	294	0	(1)	290	+4	+1.1
South Atlantic	3,348	3,344	+2	(1)	3,247	+99	+3.0
Delaware.....	68	67	+1	+1.7	64	+4	+6.4
Maryland.....	497	494	+3	+0.7	470	+27	+5.7
District of Columbia.....	334	332	+2	+0.8	317	+17	+5.4
Virginia.....	480	472	+8	+1.8	464	+16	+3.6
West Virginia.....	368	365	+3	+0.8	353	+15	+4.0
North Carolina.....	555	558	-3	-0.6	553	+2	+0.4
South Carolina.....	269	269	0	(1)	267	+2	+0.8
Georgia.....	456	459	-3	-0.8	441	+15	+3.4
Florida.....	319	328	-9	-2.9	318	+1	+0.2
East South Central	1,316	1,316	0	(1)	1,289	+27	+2.0
Kentucky.....	356	354	+2	+0.7	344	+12	+3.4
Tennessee.....	437	436	+1	+0.1	423	+14	+3.3
Alabama.....	350	352	-2	-0.5	342	+8	+2.4
Mississippi.....	173	174	-1	-0.4	180	-7	-4.0
West South Central	1,775	1,787	-12	-0.6	1,785	-10	-0.5
Arkansas.....	169	168	+1	+0.5	172	-3	-2.0
Louisiana.....	359	365	-6	-1.5	356	+3	+0.9
Oklahoma.....	286	287	-1	-0.3	293	-7	-2.1
Texas.....	961	967	-6	-0.6	964	-3	-0.3
Mountain	761	747	+14	+1.8	751	+10	+1.1
Montana.....	112	109	+3	+2.9	109	+3	+3.0
Idaho.....	84	81	+3	+3.2	82	+2	+2.0
Wyoming.....	52	50	+2	+4.2	53	-1	-2.4
Colorado.....	217	214	+3	+1.2	217	0	-0.2
New Mexico.....	70	69	+1	+1.7	69	+1	+0.9
Arizona.....	87	87	0	+0.3	87	0	+0.4
Utah.....	107	105	+2	+1.9	104	+3	+2.2
Nevada.....	32	32	0	-0.9	30	+2	+5.7
Pacific	2,359	2,328	+31	+1.3	2,302	+57	+2.5
Washington.....	423	416	+7	+1.7	413	+10	+2.4
Oregon.....	235	223	+12	+5.4	227	+8	+3.6
California.....	1,701	1,689	+12	+0.7	1,662	+39	+2.4

¹ Less than 0.1 percent.

Industrial and Business Employment

Monthly reports on employment and pay rolls are available for 90 manufacturing industries; 16 nonmanufacturing industries, including private building construction; water transportation; and class I steam railroads. The reports for the first 2 of these groups—manufacturing and nonmanufacturing—are based on sample surveys by the Bureau of Labor Statistics. The figures on water transportation are based on estimates prepared by the Maritime Commission and those on class I steam railroads are compiled by the Interstate Commerce Commission. They are presented in the foregoing summary.

The indexes of factory employment and pay rolls are based on the 3-year average 1923–25 as 100 and are adjusted to 1937 census data. They relate to wage earners only and are computed from reports supplied by representative manufacturing establishments in 90 manufacturing industries. These reports cover more than 55 percent of the total wage earners in all manufacturing industries of the country and more than 65 percent of the wage earners in the 90 industries included in the monthly survey of the Bureau of Labor Statistics.

The indexes for the nonmanufacturing industries are based on the 12-month average for 1929 as 100. Figures for mining, laundries, and dyeing and cleaning cover wage earners only, but the figures for public utilities, trade, and hotels relate to all employees except corporation officers, executives, and other employees whose duties are mainly supervisory. For crude-petroleum production they cover wage earners and the clerical field force. The coverage of the reporting samples for the various nonmanufacturing industries ranges from approximately 25 percent for wholesale and retail trade, dyeing and cleaning, and insurance, to approximately 80 percent for quarrying and non-metallic mining, anthracite mining, and public utilities.

The indexes for retail trade have been adjusted to conform in general with the 1935 census of retail distribution and are weighted by lines of trade. For the public utilities they have been adjusted to the 1937 census of electrical industries, for wholesale trade to the 1933 census, and for coal mining, year-round hotels, laundries, and dyeing and cleaning to the 1935 censuses.

Data for both manufacturing and nonmanufacturing industries are based on reports of the number of employees and amount of pay rolls for the pay period ending nearest the 15th of the month.

The average weekly earnings shown in table 3 are computed by dividing the total weekly pay rolls in the reporting establishments by the total number of full- and part-time employees reported. As not all reporting establishments supply man-hours, average hours worked per week, and average hourly earnings are necessarily based

on data furnished by a smaller number of reporting firms. The size and composition of the reporting sample vary slightly from month to month. Therefore, the average hours per week, average hourly earnings, and average weekly earnings shown may not be strictly comparable from month to month. The sample, however, is believed to be sufficiently adequate in virtually all instances to indicate the general movements of earnings and hours over the period shown. The changes from the preceding month, expressed as percentages, are based on identical lists of firms for the 2 months, but the changes from June 1939 are computed from chain indexes based on the month-to-month percentage changes.

**EMPLOYMENT AND PAY-ROLL INDEXES, AVERAGE HOURS, AND
AVERAGE EARNINGS**

The employment and pay-roll indexes, as well as average hours worked per week, average hourly earnings, and average weekly earnings in manufacturing and nonmanufacturing industries for April, May, and June 1940, where available, are presented in table 3. The April and May figures, where given, may differ in some instances from those previously published because of revisions necessitated primarily by the inclusion of late reports.

In table 4, indexes of employment and pay rolls are given for all manufacturing industries combined, for the durable- and nondurable-goods groups of manufacturing industries, and for each of the 13 non-manufacturing industries, by months, from June 1939 to June 1940, inclusive. The accompanying chart indicates the trend of factory employment and pay rolls from January 1919 to June 1940.

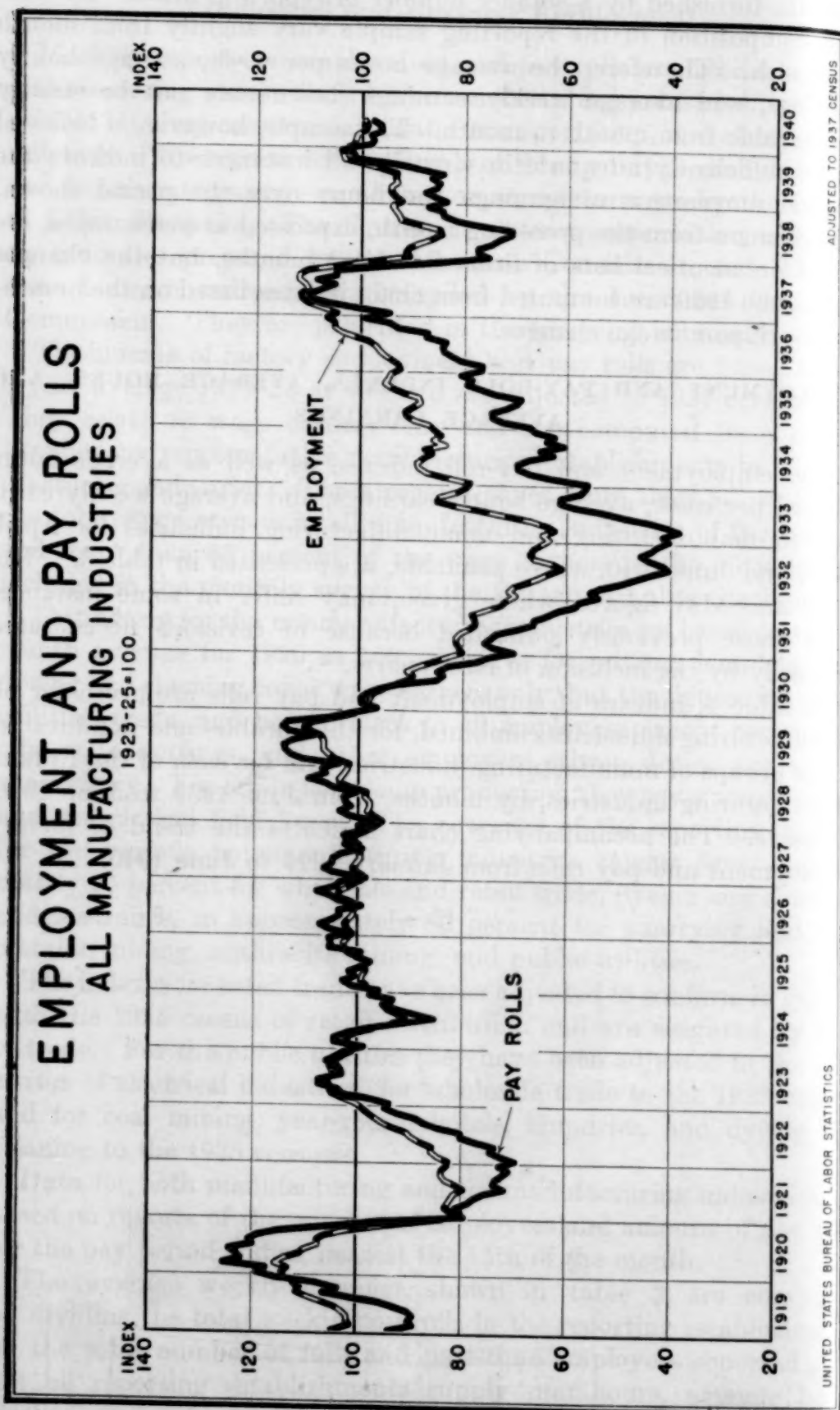


TABLE 3.—*Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries*

MANUFACTURING

[Indexes are based on 3-year average, 1923-35=100, and are adjusted to 1937 Census of Manufactures for all industries except automobiles. Not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request.]

Industry	Employment index			Pay-roll index			Average weekly earnings ¹			Average hours worked per week ¹			Average hourly earnings ¹		
	June 1940	May 1940	April 1940	June 1940	May 1940	April 1940	June 1940	May 1940	April 1940	June 1940	May 1940	April 1940	June 1940	May 1940	April 1940
All manufacturing	92.4	99.0	99.6	97.9	98.3	96.3	\$25.79	\$25.43	\$25.33	37.5	37.2	37.2	67.2	66.9	66.5
Durable goods	97.0	96.5	96.0	100.1	97.5	97.2	29.48	28.80	28.92	38.7	38.2	38.2	73.2	73.0	72.9
Nondurable goods	101.7	101.5	103.0	95.5	94.9	95.4	21.81	21.72	21.49	36.4	36.3	36.2	61.7	61.5	60.9
Durable goods															
Iron and steel and their products, not including machinery	103.7	101.9	101.7	102.8	97.1	94.9	29.30	28.16	27.50	37.6	36.6	36.0	77.4	76.7	76.4
Blast furnaces, steel works, and rolling mills	114.3	109.1	108.4	113.9	103.1	98.6	31.53	29.87	28.73	37.1	35.5	34.4	84.9	84.2	83.8
Bolts, nuts, washers, and rivets	104.2	105.8	108.7	110.7	109.3	113.9	25.79	25.07	25.31	37.3	36.5	37.0	69.1	68.7	68.4
Cast-iron pipe	76.8	75.8	74.5	70.0	66.8	62.2	21.80	21.00	19.96	35.9	34.6	33.0	60.5	60.3	60.1
Cutlery (not including silver and plated cutlery) and edge tools	101.2	102.5	103.8	91.6	92.0	93.5	23.63	23.40	23.47	38.6	38.7	38.9	62.0	61.4	61.2
Forgings, iron and steel	66.0	66.7	66.8	74.1	73.4	75.1	30.48	29.90	30.60	39.1	38.5	39.3	78.1	77.7	78.0
Hardware	81.6	85.9	98.1	85.8	101.9	104.0	25.85	26.14	26.13	38.0	37.8	38.1	68.0	69.2	68.5
Plumbers' supplies	82.9	81.8	81.8	73.0	72.7	72.3	25.70	25.94	25.78	36.8	37.1	36.9	70.0	70.0	70.0
Stamped and enameled ware	152.7	156.4	159.6	162.6	162.1	163.5	25.34	24.67	24.37	38.3	38.1	38.0	65.7	64.3	63.8
Steam and hot-water heating apparatus and steam fittings	85.1	85.0	84.6	76.6	74.5	75.6	27.47	26.77	27.36	39.2	37.8	38.5	70.3	70.9	71.2
Stoves	92.6	91.1	90.8	82.7	84.0	82.3	25.49	26.35	25.95	37.3	38.4	37.9	68.4	68.8	68.4
Structural and ornamental metal work	73.5	71.1	70.0	64.8	61.7	61.2	28.56	28.13	28.42	38.6	38.0	38.6	74.1	74.1	73.7
Tin cans and other tinware	102.8	95.6	94.8	113.5	100.9	101.0	25.04	24.04	24.20	39.8	38.6	38.9	63.2	62.4	62.4
Tools (not including edge tools, machine tools, files, and saws)	91.6	92.0	93.5	88.6	90.2	91.0	24.42	24.75	24.57	38.9	39.6	39.3	62.8	62.7	62.6
Wirework	152.1	161.1	161.5	161.0	169.7	174.8	26.48	26.42	27.16	37.5	37.2	38.0	70.7	71.1	71.7

See footnotes at end of table.

TABLE 3.—Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries—Continued

MANUFACTURING—Continued

[Indexes are based on 3-year average, 1923-35=100, and are adjusted to 1937 Census of Manufactures for all industries except automobiles. Not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request]

Industry	Employment index			Pay-roll index			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	June 1940	May 1940	April 1940	June 1940	May 1940	April 1940	June 1940	May 1940	April 1940	June 1940	May 1940	April 1940	June 1940	May 1940	April 1940
<i>Durable goods—Continued</i>															
Machinery, not including transportation equipment	115.1	113.9	113.6	125.1	122.3	121.6	\$30.41	\$30.11	\$29.97	40.8	40.5	40.5	74.3	74.1	73.9
Agricultural implements (including tractors)	137.3	139.6	141.4	157.8	164.0	166.1	30.74	31.42	31.43	38.6	39.4	39.3	79.8	79.9	80.1
Cash registers, adding machines, and calculating machines	130.4	129.0	129.0	138.0	133.5	133.9	33.32	32.58	32.75	40.4	39.7	39.9	83.0	82.4	82.4
Electrical machinery, apparatus, and supplies	103.3	101.9	101.5	118.3	114.3	112.7	30.52	30.01	29.70	40.2	39.8	39.4	76.4	75.7	75.6
Engines, turbines, water wheels, and windmills	158.1	148.9	140.2	210.7	193.8	183.1	35.05	34.21	34.35	43.8	43.1	42.9	80.3	79.7	80.3
Foundry and machine-shop products	96.9	96.5	97.2	95.8	94.6	95.4	29.41	29.21	29.27	40.4	40.1	40.3	72.8	73.0	72.6
Machine tools	229.1	221.1	216.3	302.9	289.7	287.1	36.68	36.35	36.72	47.9	47.5	47.9	76.6	76.6	76.7
Radio and phonographs	141.0	136.5	128.3	134.0	126.9	116.0	23.61	23.09	22.46	38.5	38.2	36.8	61.4	60.6	61.1
Textile machinery and parts	79.0	82.2	84.9	74.1	77.0	80.1	25.70	25.71	26.01	39.4	39.6	40.1	65.4	65.1	65.0
Typewriters and parts	111.0	113.1	114.4	112.1	114.0	112.2	24.75	24.73	24.06	37.7	38.1	37.2	65.6	64.9	64.7
Transportation equipment	112.2	115.0	115.4	119.1	116.6	122.6	34.32	32.83	34.40	38.1	36.7	38.3	90.5	90.2	90.2
Aircraft	2,518.7	2,328.2	2,166.0	2,514.0	2,212.6	2,092.7	31.18	29.69	29.75	42.7	41.2	41.4	74.2	73.2	73.3
Automobiles	104.8	109.8	112.0	112.5	111.1	121.2	35.47	33.47	35.78	37.2	35.4	37.9	95.3	94.7	94.5
Cars, electric and steam-railroad	51.2	55.7	57.4	45.3	49.9	52.0	27.68	28.05	28.36	36.7	37.2	37.4	75.3	75.4	75.7
Locomotive	29.1	28.2	28.0	28.5	26.9	26.1	30.12	29.35	28.61	38.2	37.4	36.7	78.9	78.5	77.9
Shipbuilding	162.8	158.2	152.8	185.8	180.4	169.4	34.24	34.20	33.25	39.2	39.5	38.5	86.9	86.2	85.9
Nonferrous metals and their products	106.5	105.3	105.6	105.9	103.6	103.1	27.25	27.02	26.76	36.0	35.8	36.6	70.2	70.1	70.0
Aluminum manufactures	176.5	172.9	171.5	204.3	201.5	199.3	28.30	28.38	28.31	39.7	39.8	39.8	71.0	71.3	71.1
Brass, bronze, and copper products	127.1	125.5	125.8	140.7	134.2	133.0	29.93	29.00	28.74	39.8	38.8	38.6	75.4	75.0	74.9
Clocks and watches and time-recording devices	90.3	89.7	89.4	94.4	94.0	91.7	23.20	23.25	22.74	38.6	38.9	38.0	60.1	59.7	59.9
Jewelry	91.2	88.7	90.0	76.3	72.6	72.2	23.35	22.84	22.44	38.7	37.7	37.0	59.5	59.9	59.9
Lighting equipment	83.9	84.1	85.9	70.0	72.4	74.2	26.38	27.21	27.32	36.9	38.3	38.1	71.5	71.0	71.7
Silverware and plated ware	68.3	70.4	70.7	55.9	61.3	62.8	23.58	23.06	25.60	36.5	38.6	39.5	64.7	65.1	65.1
Smelting and refining—copper, lead, and zinc	87.2	85.5	85.9	85.7	84.3	84.4	27.57	27.71	27.59	38.7	38.9	39.0	71.3	71.2	70.8

Lumber and allied products.	68.3	68.0	66.9	63.6	63.3	61.4	20.17	20.23	20.00	38.5	38.7	38.4	52.3	52.1	51.8
Furniture.....	88.1	87.3	86.4	75.9	74.8	74.2	20.67	20.59	20.70	38.1	38.0	38.3	54.8	54.6	54.6
Lumber:															
Millwork.....	65.1	60.7	60.9	48.5	47.8	47.6	22.02	22.02	21.84	40.2	40.3	40.0	54.9	54.8	54.7
Sawmills.....	61.9	61.9	60.3	58.1	58.3	55.4	19.32	19.43	18.93	38.3	38.7	38.1	50.5	50.3	49.7
Stone, clay, and glass products.	82.9	82.0	80.5	73.4	74.6	72.2	24.20	24.79	24.49	36.3	37.1	36.5	66.4	66.4	66.4
Brick, tile, and terra cotta.....	63.1	60.9	58.0	51.1	49.2	45.2	20.74	20.65	19.97	37.4	37.4	36.1	55.1	55.1	55.1
Cement.....	72.4	70.8	67.7	69.9	69.2	63.6	27.42	27.78	26.68	38.9	39.3	38.1	70.6	70.6	70.0
Glass.....	104.9	104.4	103.3	111.0	112.0	114.2	25.89	26.18	26.35	35.1	35.6	36.0	74.0	73.9	73.9
Marble, granite, slate, and other products.....	48.5	49.1	45.7	35.6	38.8	34.3	25.97	27.93	26.47	35.6	38.6	36.9	74.4	73.2	72.6
Pottery.....	89.5	90.6	93.0	75.8	84.2	85.1	21.52	23.64	23.28	35.4	37.5	37.1	64.0	63.8	63.9
Nondurable goods															
Textiles and their products.	98.7	96.0	98.8	75.4	77.9	81.4	16.43	16.52	16.74	33.5	33.7	34.2	49.6	49.6	49.5
Fabrics.....	85.7	87.0	88.3	72.5	73.9	75.2	16.24	16.35	16.40	34.1	34.3	34.5	48.4	48.4	48.2
Carpets and rugs.....	70.2	73.7	79.5	54.6	59.9	67.8	21.55	23.61	23.61	32.4	32.7	35.5	66.6	67.0	66.6
Cotton goods.....	86.9	88.8	90.8	74.7	78.1	80.6	13.92	14.24	14.39	34.0	34.5	35.0	41.2	41.2	41.0
Cotton small wares.....	73.8	76.0	79.0	66.8	68.2	73.4	17.54	17.38	18.05	36.3	35.9	37.4	48.7	48.6	49.0
Dyeing and finishing textiles.....	115.7	122.6	125.4	93.0	98.9	104.7	19.67	19.70	20.25	35.5	35.6	36.4	54.9	54.9	55.0
Hats, fur-felt.....	71.2	66.2	65.4	57.5	46.0	38.6	22.08	18.98	16.12	31.6	26.3	22.2	72.4	71.7	71.5
Hosiery.....	130.2	133.7	140.0	127.9	133.5	144.1	17.52	17.12	18.41	32.2	32.5	33.2	55.3	55.8	55.8
Knitted underwear.....	63.1	61.6	60.0	50.6	49.9	47.2	17.13	17.30	16.79	35.8	36.0	34.9	47.1	47.5	47.6
Knitted outerwear.....	72.8	73.6	77.2	63.6	64.9	68.5	14.68	14.82	14.93	34.4	34.6	35.5	43.0	43.0	42.2
Knitted cloth.....	128.0	127.4	130.5	107.2	103.5	101.4	18.76	18.26	17.46	37.0	36.3	34.5	48.9	48.9	49.0
Silk and rayon goods.....	59.7	62.1	64.4	45.6	48.6	50.3	15.78	16.15	16.16	34.2	35.1	35.2	45.8	45.7	45.6
Woolen and worsted goods.....	75.7	71.8	66.7	65.4	60.3	53.2	19.87	19.38	18.35	35.3	34.5	32.5	56.3	56.3	56.5
Wearing apparel.	107.8	112.1	118.6	76.6	81.0	88.7	16.96	16.97	17.63	32.5	32.7	33.6	51.8	51.8	51.9
Clothing, men's.....	98.6	95.1	103.5	71.1	64.6	72.0	18.69	17.59	18.09	32.3	31.0	31.6	58.1	57.3	57.4
Clothing, women's.....	148.1	162.6	168.1	95.1	112.3	118.7	17.22	18.59	19.04	32.7	33.8	34.3	49.6	51.2	51.8
Corsets and allied garments.....	111.9	114.4	115.4	109.2	116.5	120.2	16.16	16.82	17.20	34.0	35.5	36.0	46.6	46.6	46.8
Men's furnishings.....	109.7	115.0	117.8	94.9	96.2	101.0	13.48	13.05	13.34	31.9	32.4	33.5	41.1	39.8	39.2
Millinery.....	65.7	74.6	87.3	47.1	54.1	73.8	21.08	21.40	24.95	31.6	32.3	35.0	68.5	66.3	67.2
Shirts and collars.....	115.1	121.2	125.2	92.0	101.2	111.2	12.73	13.30	14.14	32.1	33.4	35.3	40.7	40.5	40.4
Leather and its manufactures.	86.8	86.8	94.2	67.0	63.6	70.7	18.17	17.26	17.68	33.2	30.9	32.5	55.3	55.5	54.3
Boots and shoes.....	84.8	84.6	93.1	62.7	58.1	66.6	16.87	15.65	16.30	32.3	29.5	31.5	53.1	53.3	52.1
Leather.....	80.1	80.6	82.7	75.7	76.7	78.2	23.56	23.74	23.63	36.9	37.0	36.9	64.2	64.2	64.2
Food and kindred products.	129.7	121.6	119.7	129.0	121.5	117.7	25.54	25.64	25.17	40.1	40.1	39.4	64.1	64.7	64.3
Baking.....	147.0	144.7	142.5	140.8	137.8	134.3	26.55	26.52	26.22	41.7	41.7	41.4	64.2	63.9	63.6
Beverages.....	301.3	278.5	268.4	375.4	330.4	312.0	36.51	34.77	34.00	41.6	39.9	39.0	89.3	88.3	88.0
Butter.....	105.0	99.9	93.7	90.8	84.8	80.6	22.04	22.62	22.92	47.7	46.8	46.8	47.6	47.9	48.7
Canning and preserving.....	140.5	100.1	103.4	117.2	89.5	83.2	17.37	15.64	15.64	34.3	34.9	31.6	48.0	51.0	50.5
Confectionery.....	74.7	75.1	77.0	72.3	75.4	74.0	18.98	19.46	18.83	36.8	37.9	36.8	51.6	51.5	51.1
Flour.....	77.6	78.5	78.2	72.3	73.1	71.5	25.13	25.17	24.79	41.2	41.1	40.6	61.5	61.1	60.8
Ice cream.....	91.9	83.8	73.0	76.9	70.1	63.1	29.14	29.13	29.30	46.8	46.2	45.6	62.3	63.0	63.5
Slaughtering and meat packing.....	108.2	105.7	103.6	114.7	110.4	109.5	27.82	27.43	27.76	40.2	39.9	40.3	69.1	68.8	68.9

See footnotes at end of table.

TABLE 3.—Employment, Pay Rolls, Hours, and Earnings in Manufacturing and Nonmanufacturing Industries—Continued

MANUFACTURING—Continued

[Indexes are based on 3-year average, 1923-35=100, and are adjusted to 1937 Census of Manufactures for all industries except automobiles. Not comparable to indexes published in pamphlets prior to August 1939. Comparable series available upon request.]

Industry	Employment index			Pay-roll index			Average weekly earnings			Average hours worked per week			Average hourly earnings		
	June 1940	May 1940	April 1940	June 1940	May 1940	April 1940	June 1940	May 1940	April 1940	June 1940	May 1940	April 1940	June 1940	May 1940	April 1940
<i>Nondurable goods—Continued</i>															
Food and kindred products—Continued.															
Sugar beet.....	52.9	47.4	44.1	54.2	49.3	48.2	\$26.55	\$27.04	\$28.38	37.1	37.9	39.4	Cents 74.0	Cents 74.2	Cents 74.3
Sugar refining, cane.....	98.3	95.2	94.0	88.7	80.0	77.0	25.37	23.64	23.05	38.9	37.1	36.5	65.2	63.6	63.1
Tobacco manufactures.															
Chewing and smoking tobacco and snuff.....	64.9	62.2	63.8	66.9	60.7	58.7	18.98	18.02	17.07	38.1	36.4	34.7	50.5	49.7	49.3
Cigars and cigarettes.....	63.7	62.6	64.3	66.7	66.5	64.2	18.77	18.33	17.78	35.4	34.7	33.5	53.5	53.0	53.1
							19.03	17.92	16.91	38.4	36.6	34.8	50.1	49.3	48.8
Paper and printing.															
Boxes, paper.....	114.5	115.0	113.8	112.0	113.1	109.7	29.27	29.38	28.70	38.5	38.8	38.1	79.7	79.4	79.3
Paper and pulp.....	115.3	114.0	113.0	127.4	124.6	120.7	21.99	21.72	21.25	39.0	38.7	37.9	56.7	56.3	56.2
Printing and publishing:	116.2	115.2	112.0	126.2	124.2	115.4	26.70	26.52	25.35	41.5	41.6	39.9	64.4	63.8	63.7
Book and job.....	97.1	99.3	99.5	85.1	88.4	87.4	30.59	31.11	30.73	37.9	38.7	38.2	82.0	82.1	81.6
Newspapers and periodicals.....	116.2	117.1	116.5	110.1	112.3	110.9	38.21	38.56	38.27	35.6	36.2	36.2	104.4	103.5	102.9
Chemical, petroleum, and coal products.															
Petroleum refining.....	119.1	120.8	123.4	133.3	133.6	133.4	30.08	29.73	28.99	38.5	38.8	38.5	77.7	76.0	74.2
Other than petroleum refining.....	123.2	121.8	121.1	137.1	136.8	136.9	34.84	35.14	35.34	35.7	36.2	36.5	98.3	97.5	97.4
Chemicals.....	118.1	120.6	123.9	132.1	132.6	132.3	28.09	27.47	26.51	39.6	39.7	39.2	70.2	68.6	66.5
Cottonseed—oil, cake, and meal.....	138.3	136.2	135.2	165.2	161.9	159.6	32.23	32.09	31.83	40.0	40.0	39.8	80.6	80.3	80.1
Druggists' preparations.....	54.7	67.8	79.2	48.9	60.1	68.8	14.24	14.12	13.86	39.4	39.9	41.4	34.2	34.3	32.8
Explosives.....	115.8	118.4	118.7	126.1	128.5	130.5	24.71	24.64	24.88	38.3	39.0	39.4	61.1	60.5	60.2
Fertilizers.....	126.4	118.0	114.0	153.7	141.2	133.1	33.32	32.80	31.99	39.9	39.7	38.4	83.6	82.5	83.3
Paints and varnishes.....	88.8	129.1	174.8	78.9	118.6	136.2	16.19	16.60	13.81	36.1	38.4	36.4	44.8	43.2	37.9
Rayon and allied products.....	126.4	125.9	124.4	136.2	136.3	131.9	29.55	29.62	29.02	41.2	41.4	40.6	71.7	71.6	71.7
Soap.....	306.0	304.3	305.8	314.3	311.4	311.1	26.36	26.27	26.12	39.1	39.0	38.9	67.5	67.3	67.2
	81.5	81.4	81.2	100.4	98.0	98.0	28.85	28.19	28.27	40.4	39.5	39.4	71.5	71.4	71.7
Rubber products.															
Rubber boots and shoes.....	83.6	84.0	84.7	86.4	87.2	86.5	28.27	28.39	27.98	36.4	36.4	36.0	78.0	77.8	77.9
Rubber tires and inner tubes.....	54.9	54.1	56.1	56.2	53.8	55.3	23.50	22.85	22.66	38.3	37.3	37.1	61.4	61.3	61.1
Rubber goods, other.....	68.4	69.0	69.7	77.5	79.9	78.1	33.18	33.88	32.77	34.3	35.1	34.1	96.8	96.8	96.6
	139.1	140.4	139.7	133.2	131.5	132.6	23.42	22.87	23.11	38.2	37.7	37.8	61.9	61.4	61.9

NONMANUFACTURING

[Indexes are based on 12-month average, 1929=100]

	50.2	52.2	51.6	40.6	40.0	36.3	\$26.63	\$25.30	\$23.11	29.3	27.9	26.2	Cents	Cents	Cents
Coal mining:															
Anthracite ¹	83.7	85.1	86.2	74.0	75.3	72.2	23.83	23.85	22.63	27.3	27.1	25.6	91.6	92.2	90.6
Bituminous ¹	70.4	69.2	67.7	66.8	65.7	63.5	29.56	29.59	29.30	40.9	41.2	40.4	88.2	88.5	88.0
Metaliferous mining	47.7	46.9	44.5	43.3	42.7	38.1	22.65	22.74	21.33	40.0	40.3	38.4	72.2	72.5	72.8
Quarrying and nonmetallic mining	63.8	63.3	63.1	58.7	58.7	59.0	33.74	34.05	34.20	37.4	38.3	38.2	56.1	56.3	55.6
Crude-petroleum production													87.3	88.6	87.9
Public utilities:															
Telephone and telegraph ²	77.9	77.3	76.7	68.9	68.8	68.7	31.18	31.43	31.58	39.0	39.3	39.3	80.4	80.3	80.9
Electric light and power ²	91.3	90.6	90.0	105.1	104.2	103.3	35.10	35.09	34.98	39.5	40.1	39.9	87.4	88.7	87.8
Street railways and busses ²	68.6	68.4	68.3	70.0	69.2	69.2	33.62	33.39	33.37	46.3	46.1	46.0	71.6	71.9	71.7
Trade:															
Wholesale ³	89.3	88.9	89.3	77.9	77.4	77.4	30.61	30.54	30.33	41.1	41.4	41.3	74.1	74.7	73.7
Retail ³	91.5	91.2	89.8	84.4	83.4	82.3	21.55	21.46	21.46	42.8	42.6	42.9	54.8	54.8	54.6
Food ⁴	104.3	104.3	103.1	96.4	95.2	94.3	23.66	23.38	23.48	43.3	43.1	43.2	52.5	52.8	52.3
General merchandising ⁴	95.4	95.1	92.9	88.6	86.6	85.0	18.21	17.88	18.02	39.0	38.2	38.8	46.1	46.8	46.3
Apparel ⁴	87.7	87.1	85.2	80.1	78.4	77.0	21.23	20.99	21.25	38.0	38.0	38.5	54.7	55.3	54.7
Furniture ⁴	77.7	77.7	78.1	70.9	70.8	68.7	28.97	29.04	28.58	43.3	44.0	44.2	69.6	69.6	68.4
Automotive ⁴	86.4	86.1	84.7	82.6	82.6	81.8	28.54	28.63	28.68	47.4	47.5	47.8	59.9	59.9	59.9
Lumber ⁴	75.4	74.6	72.4	71.6	70.7	68.0	26.61	26.60	26.32	42.9	42.9	42.6	63.1	62.7	63.1
Hotels (year-round) ³	91.2	93.4	92.7	81.8	83.0	83.2	15.49	15.36	15.60	46.6	46.3	46.6	33.1	33.3	33.0
Laundries ²	102.5	99.1	97.2	92.3	88.5	85.6	18.47	18.32	18.03	43.6	43.5	43.0	42.1	42.4	42.0
Dyeing and cleaning ²	112.5	108.7	104.5	89.6	83.4	79.6	21.75	21.46	20.99	45.4	44.7	43.5	48.9	48.8	49.4
Brokerage ³	-3	+3	+2	-1	-1.0	+3.5	37.24	37.42	37.74	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)
Insurance ³	+6	+3	+3	-1	+7	+1	36.75	37.01	36.90	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)	(⁵)
Building construction ³	+5.1	+13.6	+11.7	+5.0	+19.5	+13.3	31.94	31.99	30.32	33.8	33.5	31.7	94.8	95.5	95.8

¹ Revised series. Mimeographed sheets, giving averages by years, 1932 to 1938, inclusive, and by months, January 1938 to September 1939, inclusive, available on request. A average hours and average hourly earnings are computed from data supplied by a smaller number of establishments than average weekly earnings, as not all reporting firms furnish man-hours. The figures are not strictly comparable from month to month because of changes in the size and composition of the reporting sample.

² Indexes adjusted to 1935 census. Comparable series back to January 1929 presented in January 1938 issue of pamphlet.

³ Average weekly earnings, hourly earnings, and hours not comparable with figures published in pamphlets prior to January 1938 as they now exclude corporation officers, executives, and other employees whose duties are mainly supervisory.

⁴ Retail-trade indexes adjusted to 1935 census and public-utility indexes to 1937 census.

Not comparable to indexes published in pamphlets prior to January 1940 or in Monthly Labor Reviews prior to April 1940.

⁵ Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies; formerly "electric-railroad and motorbus operation and maintenance."

⁶ Indexes adjusted to 1933 census. Comparable series in November 1934 and subsequent issues of pamphlet.

⁷ Cash payments only; additional value of board, room, and tips not included.

⁸ Indexes of employment and pay rolls are not available; percentage changes from preceding month substituted.

⁹ Not available.

TABLE 4.—Indexes of Employment and Pay Rolls in Selected Manufacturing¹ and Non-manufacturing² Industries, June 1939 to June 1940, Inclusive

Industry	Employment													
	1939								1940					
	Av.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
<i>Manufacturing</i>														
All industries.....	96.8	93.4	93.5	96.3	100.2	103.6	103.8	104.1	101.4	101.4	100.8	99.6	99.0	99.4
Durable goods ³	87.8	84.6	83.0	83.9	89.8	96.1	98.2	100.0	97.4	96.6	96.4	96.0	96.5	97.0
Nondurable goods ⁴	105.5	101.8	103.5	108.1	110.2	110.8	109.2	108.0	105.3	106.1	105.1	103.0	101.5	101.7
<i>Nonmanufacturing</i>														
Anthracite mining ⁵	50.6	51.2	44.7	48.5	49.4	51.9	51.3	51.0	51.5	52.0	52.6	51.6	52.2	50.2
Bituminous coal mining ⁵	78.6	78.3	79.4	81.4	85.4	93.0	94.9	92.6	91.8	91.7	89.7	86.2	85.1	83.7
Metalliferous mining.....	62.7	61.6	60.4	60.4	62.9	65.3	66.5	67.3	66.4	66.3	66.2	67.7	69.2	70.4
Quarrying and nonmetallic mining.....	44.6	47.3	47.5	48.1	47.9	48.0	47.1	44.0	37.8	38.3	41.0	44.5	46.9	47.7
Crude petroleum production.....	65.8	67.0	67.3	66.7	65.0	64.3	63.8	63.8	63.2	63.0	63.2	63.1	63.3	63.8
Telephone and telegraph ⁶	75.8	76.4	76.5	76.6	76.4	76.5	76.1	75.8	76.1	75.9	76.0	76.7	77.3	77.9
Electric light and power ⁶	89.0	89.2	90.0	90.6	90.6	90.4	90.3	90.1	89.1	89.2	89.3	90.0	90.6	91.3
Street railways and busses ^{6,7}	69.0	69.3	69.1	69.2	69.2	69.5	69.3	69.0	68.8	68.7	68.2	68.3	68.4	68.6
Wholesale trade.....	89.2	88.1	87.9	89.0	90.5	92.4	92.1	92.2	90.6	90.2	90.5	89.3	88.9	89.3
Retail trade ⁶	89.8	80.4	87.2	86.3	90.5	91.7	93.3	104.2	87.7	87.0	91.1	89.8	91.2	91.5
Year-round hotels ⁶	92.0	92.8	90.3	89.8	91.3	92.9	91.8	90.8	91.3	92.1	92.0	92.7	93.4	91.2
Laundries ⁵	95.9	98.7	100.0	99.1	97.8	96.0	95.6	95.6	96.0	95.8	96.2	97.2	99.1	102.5
Dyeing and cleaning ⁵	101.3	110.1	106.5	102.7	105.2	105.1	97.8	97.4	94.0	93.7	99.5	104.5	108.7	112.5
<i>Pay rolls</i>														
<i>Manufacturing</i>														
All industries.....	90.8	86.5	84.4	89.7	93.8	101.6	101.6	103.7	98.3	97.8	98.2	96.3	96.3	97.9
Durable goods ³	85.2	80.7	76.0	81.5	87.8	99.6	100.9	104.6	98.2	96.7	97.6	97.2	97.5	100.0
Nondurable goods ⁴	97.0	93.0	93.7	99.0	100.5	103.9	102.4	102.8	98.4	99.1	99.0	95.4	94.9	95.5
<i>Nonmanufacturing</i>														
Anthracite mining ⁵	39.5	36.1	25.2	33.8	40.1	52.2	42.0	26.6	52.5	32.9	38.4	36.3	40.0	40.6
Bituminous coal mining ⁵	69.9	66.5	64.5	74.6	80.2	97.6	96.3	84.3	87.0	87.0	78.3	72.2	75.3	74.0
Metalliferous mining.....	56.0	53.8	48.5	53.0	55.1	63.4	63.9	65.0	63.6	64.2	63.2	63.5	65.7	66.8
Quarrying and nonmetallic mining.....	38.7	41.7	40.9	42.9	42.7	45.6	42.9	39.2	29.6	30.8	34.1	38.1	42.7	43.3
Crude petroleum production.....	61.0	62.5	61.9	62.0	60.8	58.8	59.6	59.2	58.4	59.0	58.4	59.0	58.7	58.7
Telephone and telegraph ⁶	95.6	95.7	96.6	96.3	96.9	97.2	96.4	97.4	97.4	96.9	98.1	98.7	98.8	98.9
Electric light and power ⁶	100.4	101.2	101.1	102.2	102.2	102.0	102.5	102.4	101.6	102.2	102.3	103.3	104.2	105.1
Street railways and busses ^{6,7}	69.5	70.0	69.4	69.8	69.2	71.2	69.4	69.8	69.0	71.5	69.5	69.2	69.2	70.0
Wholesale trade.....	76.6	75.8	75.8	76.2	78.0	80.3	79.0	79.1	77.1	77.1	77.8	77.4	77.4	77.9
Retail trade ⁶	80.8	81.1	79.5	78.0	80.9	83.2	83.6	91.8	79.9	79.1	82.0	82.3	83.4	84.4
Year-round hotels ⁶	81.2	82.0	79.1	79.2	80.4	82.2	81.8	81.1	81.1	82.7	81.8	83.2	83.0	81.8
Laundries ⁵	83.1	86.9	88.0	85.9	84.5	83.9	82.9	83.7	83.4	83.1	84.1	85.6	88.5	92.3
Dyeing and cleaning ⁵	73.6	84.2	77.1	73.0	78.3	77.3	70.8	69.9	65.5	64.4	72.7	79.6	85.4	89.6

¹ 3-year average 1923-25=100—adjusted to 1937 Census of Manufactures.² 12-month average for 1925=100. Comparable indexes for wholesale trade, quarrying, metal mining, and crude petroleum production are in November 1934 and subsequent issues of Employment and Pay Rolls, or in February 1935 and subsequent issues of Monthly Labor Review. For other nonmanufacturing indexes see notes 5 and 6.³ Includes: Iron and steel, machinery, transportation equipment, nonferrous metals, lumber and allied products, and stone, clay, and glass products.⁴ Includes: Textiles and their products, leather and its manufactures, food and kindred products, tobacco manufactures, paper and printing, chemicals and allied products, products of petroleum and coal, rubber products, and a number of miscellaneous industries not included in other groups.⁵ Indexes have been adjusted to the 1935 census. Comparable series from January 1929 forward are presented in January 1938 and subsequent issues of pamphlet.⁶ Retail trade indexes adjusted to 1935 census and public utility indexes to 1937 census. Not comparable with indexes published in pamphlets prior to January 1940 or in Monthly Labor Review prior to April 1940. Comparable series January 1929 to December 1939 available in mimeographed form.⁷ Covers street railways and trolley and motorbus operations of subsidiary, affiliated, and successor companies.

INDUSTRIAL AND BUSINESS EMPLOYMENT IN PRINCIPAL METROPOLITAN AREAS

A comparison of employment and pay rolls in May and June 1940 is made in table 5 for 13 metropolitan areas, each of which had a population of 500,000 or over in 1930. Cities within these areas, but having a population of 100,000 or over, are not included. Footnotes to the table specify which cities are excluded. Data concerning them have been prepared in a supplementary tabulation which is available on request. The figures represent reports from cooperating establishments and cover both full- and part-time workers in the manufacturing and nonmanufacturing industries presented in table 3, with the exception of building construction, and include also miscellaneous industries.

Revisions made in the figures after they have gone to press, chiefly because of late reports by cooperating firms, are incorporated in the supplementary tabulation mentioned above. This supplementary tabulation covers these 13 metropolitan areas as well as other metropolitan areas and cities having a population of 100,000 or more according to the 1930 Census of Population.

TABLE 5.—Comparison of Employment and Pay Rolls in Identical Establishments in May and June 1940, by Principal Metropolitan Areas

Metropolitan area	Number of establishments June 1940	Number on pay roll June 1940	Percentage change from May 1940	Amount of pay roll (1 week) June 1940	Percentage change from May 1940
New York ¹	14,540	684,140	-0.2	\$19,535,577	+0.5
Chicago ²	4,325	454,409	+7	13,024,846	+1.9
Philadelphia ³	2,398	213,303	+5	6,069,222	+3.0
Detroit.....	1,619	326,877	-3.7	11,314,036	+7
Los Angeles ⁴	3,075	184,382	+3	5,468,827	+4
Cleveland.....	1,627	125,547	+1.6	3,771,324	+3.8
St. Louis.....	1,394	124,377	+6	3,143,977	+2.3
Baltimore.....	1,142	117,805	+4	3,092,600	+2.0
Boston ⁵	3,078	182,042	+2	4,642,260	+1.8
Pittsburgh.....	1,232	195,361	+3.1	5,816,975	+4.7
San Francisco ⁶	1,667	88,646	+1.3	2,780,081	+2.2
Buffalo.....	788	79,137	+3.4	2,256,722	+6.8
Milwaukee.....	974	100,610	+5	2,967,999	+1.4

¹ Does not include Elizabeth, Jersey City, Newark, or Paterson, N. J., or Yonkers, N. Y.

² Does not include Gary, Ind.

³ Does not include Camden, N. J.

⁴ Does not include Long Beach, Calif.

⁵ Does not include Cambridge, Lynn, or Somerville, Mass.

⁶ Does not include Oakland, Calif.

Recent Publications of Labor Interest

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Consumer Problems

Bibliography on consumer education. By George C. Mann. New York and London, Harper & Bros., 1939. 286 pp.

The nearly 2,000 annotated references in this volume cover material published up to November 15, 1938. The first group of the two major classifications deals with consumer economics—family budgets, prices, advertising methods, cooperatives, etc.—and the second, with information as to the best things to buy. Succeeding sections list textbooks and other teaching aids, bibliographies, magazines, and commercial publications. Author and subject indexes are provided.

59¢ of your \$1—the cost of distribution. By T. R. Carskadon. New York, Public Affairs Committee, Inc., 1940. 31 pp., charts. (Public affairs pamphlet No. 44.)

Based on an earlier Twentieth Century Fund volume, entitled "Does distribution cost too much? A review of the costs involved in current marketing methods and program for improvement."

Cooperative Movement

Belgian rural cooperation: A study in social adjustment. By E. J. Ross. Milwaukee, Bruce Publishing Co., 1940. 194 pp., chart.

A study not only of cooperative associations but also of the social aspects of Belgian agriculture, with a general review of the agricultural organization of the country.

O cooperativismo no Brasil e sua evolução. By Fabio Luz Filho. Rio de Janeiro, A. Coelho Branco F. (Editor), 1939. 302 pp.

Account of the cooperative movement in Brazil, text of Brazilian legislation dealing with cooperatives from 1903 through December 5, 1938, and statistics of cooperatives in Brazil in 1938 or February 1939. There is also discussion of agricultural cooperatives in Czechoslovakia.

Public employee credit unions: A review of organized cooperative credit among teachers and other government employees. By A. R. Rathert. Minneapolis, Minnesota State Federation of Teachers, 1940. 18 pp.

Statistics relate mainly to Minnesota credit unions.

Cost and Standards of Living

Methods of family-living studies: Income—expenditure—consumption. By Robert Morse Woodbury. Geneva, International Labor Office, 1940. 144 pp. (Studies and reports, Series N, No. 23.)

For the preparation of this study all the major family-budget investigations made during the last 15 years were examined. The report describes the purposes of these inquiries and the methods of gathering and analyzing data. Special attention is paid to the problem of appraising the findings.

Money disbursements of wage earners and clerical workers in eight cities in East North Central Region, 1934-36. By Faith M. Williams and Alice C. Hanson. Washington, U. S. Bureau of Labor Statistics, 1940. 443 pp., charts. (Bull. No. 636.)

Index numbers of farm living costs, 1913-38, and farm living expenditures, 1934 [in Canada]. Ottawa, Dominion Bureau of Statistics, 1939. 37 pp., charts.

How to make your budget balance. By E. C. Harwood and Helen Fowle. Cambridge, Mass., American Institute for Economic Research, 1940. 143 pp., charts. 2d ed.

According to the authors, a budget designed to meet the needs and tastes of the individual or family concerned enables those who thus plan their expenditures to obtain a larger share of the satisfactions of life than they would without such an aid.

Economic and Social Problems

Capital expansion, employment, and economic stability. By Harold G. Moulton and others. Washington, Brookings Institution, 1940. 413 pp., charts. (Institute of Economics publication No. 82.)

The authors express the view that there should be a greater flow of funds, especially in the form of long-term investment money, into new capital enterprise. The regulatory and fiscal policies of Government are viewed as having contributed in some degree to what is termed capital stagnation. There is less emphasis than in many contemporary studies on the declining role of investment in capital goods, due to such factors as the slower rate of growth of new countries and of population and the rapid progress of capital-saving techniques.

How money works. By Arthur D. Gayer and W. W. Rostow. New York, Public Affairs Committee, Inc., 1940. 31 pp., charts. (Public affairs pamphlet No. 45.)

A simplified explanation of the different kinds of money, the methods of creating them, the part played by banks and business men, and the role of Government, including a possible expansion of public investment.

Monopoly and big business. By Irving Lipkowitz. New York, League for Industrial Democracy, 1940. 56 pp.

The writer describes concentration in business, analyzes its effects, and discusses problems of public policy. He advocates the socialization of major monopolies but favors no all-embracing single policy.

British industry—its changing structure in peace and war. By M. Compton and E. H. Bott. London, Lindsay Drummond, Ltd., 1940. 304 pp.

The chapter on labor in industry shows changes in employment, by industrial groups, at various periods since 1932. It is pointed out that the ratio of administrative to productive employees has been increased, whether the trend of total employment in the respective industries has been expanding or has been declining. Industries are analyzed according to the increase or decrease in employment opportunities.

Mr. Keynes answered: An examination of the Keynes plan. By Emile Burns. London, Lawrence & Wishart, Ltd., 1940. 80 pp.

Criticism of Mr. Keynes' plan for British financing of the war, and particularly of his proposal for compulsory savings by workers.

Plan for democratic Britain. By G. D. H. Cole. London, Odhams Press, Ltd., 1939. 255 pp.; bibliography.

Outlines what is termed a "moderate policy" to establish socialism within the framework of the democratic British State.

The American family in a changing society—a guide to study and research. By Harriet Ahlers Houdlette. Washington, American Association of University Women, 1939. 84 pp., bibliography, charts. (Education series.)

Among the major subjects considered in this guide are power versus the human hand, whether the homemaker has lost her job, the marriage upheaval, the average family as a problem of declining population, the modern parent—a social engineer, and education in a changing civilization.

Group life. By Mary K. Simkhovitch. New York, Association Press, 1940. 99 pp., bibliography.

The groups discussed include the family, vocational groups, labor organizations, and consumers' cooperatives.

Education and Training

Education and the defense of American democracy. Washington, Educational Policies Commission, 1940. 23 pp.

The role of our system of education in the defense policy of the United States is outlined in this pamphlet.

Policies and standards for supervision and administration of vocational rehabilitation [in Maryland]. (In Maryland School Bulletin, State Department of Education, Baltimore, March 1939; 14 pp.)

The administration of vocational education in Pennsylvania—policies and legislation. Harrisburg, Department of Public Instruction, 1939. 271 pp. (Bull. 201.)

Deals with the laws, plans, and policies in Pennsylvania for the organization and administration of vocational schools and classes carried on under Federal and State legislation.

A survey of vocational technical education in the [British] Colonial Empire. London, Colonial Office, 1940. 61 pp. (Colonial No. 177.)

Employment and Unemployment

Review of employment and pay rolls for Illinois industries and cities, cost of living, and building construction during the year 1939. Chicago, Illinois Department of Labor, [1940]. 111 pp., charts; mimeographed.

In addition to the subjects indicated explicitly by the title, the report gives figures of weekly earnings, changes in wage rates, weekly working hours, and length of workweek and pay-roll practices.

Employment prospects in petroleum and natural-gas industry. By H. O. Rogers. Washington, U. S. Bureau of Labor Statistics, 1940. 16 pp. (Serial No. R. 1126, reprint from June 1940 Monthly Labor Review.)

Skilled workers in American industries. By Charles S. Slocombe. New York, Personnel Research Federation, 1940. 106 pp., charts.

The study reviews the steps taken by industry to meet the increased requirements for skilled labor in 1936-37, and more recently in 1939-40. It is stated that how far business expansion must rise before there is a real skilled-labor shortage is not known but the aim of the report is to aid companies in preparing for such an eventuality.

A brief bibliography of the literature relating to changes in employment practices resulting from operation of the social security program. By Franz Huber. Washington, Social Science Research Council, Committee on Social Security, July 1940. 9 pp.; mimeographed.

Canadians in and out of work: A survey of economic classes and their relation to the labor market. By Leonard C. Marsh. Toronto, Oxford University Press, for McGill University, 1940. xx, 503 pp., charts. (McGill social research series, No. 9.)

Brings together available contemporary statistics to form a factual picture of Canada's employed and unemployed working population and also presents "a basic social perspective." The last three chapters of the volume deal, respectively, with social classes, occupational recruitment, and some implications of policy.

Eighth report from Select Committee on National Expenditure, House of Commons, Parliament, Great Britain. London, 1940. 16 pp.

Discussion of the supplementary employment register for professional workers is included.

Health and Industrial Hygiene

Nonprofit hospital service plans. By C. Rufus Rorem. Chicago, American Hospital Association, 1940. 130 pp.

Summarizes the historical, economic, and professional aspects of voluntary prepayment plans for hospital care.

Socialized medicine. By Joseph M. Ray. Austin, University of Texas, 1939. 240 pp. (Publication No. 3938.)

Debaters' manual on the question of socialized medicine.

Industrial survey of the State of Ohio: Evaluation of industrial hygiene problems by Ohio Department of Health. Columbus, Ohio Department of Health, 1940. 291 pp.

The study shows the number of workers engaged in various occupations and lists the raw materials and byproducts used or created in proximity to the worker. No attempt was made in the report to evaluate the hazards in such exposure or to establish the limits beyond which exposure becomes dangerous.

Industrial hygiene survey of San Francisco dry cleaning establishments. Sacramento, California Department of Public Health, Industrial Hygiene Service, 1940. 30 pp., charts; mimeographed. (Investigation report No. 4.)

Industrial hygiene survey of California wineries. Sacramento, California Department of Public Health, Industrial Hygiene Service, 1939. 36 pp., chart; mimeographed. (Investigation report No. 2.)

Anthrax in industry. By Henry F. Smyth, M. D. Washington, U. S. National Institute of Health, Division of Industrial Hygiene, [1940?]. 26 pp.; mimeographed.

This report by a continuing committee of the American Public Health Association includes a review of the literature on anthrax for the years 1934-37, an annotated bibliography, and a list of other references not available for abstracting.

Dust control in rock drilling. By Leonard Greenburg, M. D., and others. (In American Journal of Public Health, New York, May 1940, pp. 463-476; charts.)

Safeguarding manpower for greater production: The importance of safe working conditions in maintaining and increasing industrial output for national defense. Washington, U. S. Department of Labor, Division of Labor Standards, 1940. 20 pp., bibliography. (Special bull. No. 1.)

Deals with physical conditions in workplaces, sanitation and hygiene, and safety practices.

Annual report of the Miners' Welfare Commission, Great Britain, 1939. London, 1940. 118 pp., illus.

Covers educational, recreational, and health activities.

Industrial Accidents and Workmen's Compensation

Coal-mine accidents in the United States, 1937. By W. W. Adams, L. E. Geyer, M. G. Parry. Washington, U. S. Bureau of Mines, 1940. 137 pp. (Bull. 430.)

The accident fatality rate in anthracite and bituminous-coal mining increased 5.3 percent in 1937 as compared with 1936. For anthracite mining separately, however, the rate showed a decrease of 11.9 percent, and in bituminous-coal mining, an increase of 9.1 percent. The nonfatal-injury record for the two classes of mining combined was lower in 1937 than in any other year since 1930, although the figure for bituminous coal alone showed an increase of 4.6 percent; in the anthracite industry there was a reduction of 19.1 percent.

Metal-mine accidents in the United States during calendar year 1937. By W. W. Adams and M. E. Kolhos. Washington, U. S. Bureau of Mines, 1940. 55 pp. (Bull. 428.)

In the metal and nonmetal (excluding coal) mining industry the fatality rate per million man-hours of exposure was slightly lower in 1937 than in 1936, but there was an increase in the figure for nonfatal injuries. The fatality rate was 0.91 in 1937 as compared with 0.98 in 1936, and the nonfatal-injury rate, 75.37 in 1937 against 72.40 in 1936.

Quarry accidents in the United States during calendar year 1937. By W. W. Adams and Virginia E. Wrenn. Washington, U. S. Bureau of Mines, 1940. 73 pp., chart. (Bull. 426.)

The quarry accident-fatality rate showed a slight reduction in 1937 as compared with 1936, being 0.49 per million man-hours of exposure against 0.62 in 1936. The nonfatal-injury rate of 40.10 was 3.2 percent higher than the 1936 rate of 38.87.

Some information on reduction of quarry accidents. By Frank E. Cash and Forrest H. Shuford. Washington, U. S. Bureau of Mines, 1940. 19 pp.; mimeographed. (Information circular 7114.)

Discussion of industrial accidents and diseases: 1939 convention of International Association of Industrial Accident Boards and Commissions, Milwaukee, Wis. Washington, U. S. Department of Labor, Division of Labor Standards, 1940. 190 pp. (Bull. No. 36.)

Acidentes do trabalho—lei, regulamento, tabelas de indenizações, outras notas [Brazil]. By Helvecio Xavier Lopes and Gilberto Flores. Rio de Janeiro, Editora "Revista do Trabalho," [1939?]. 63 pp. 2d edition, revised.

Collection of Brazilian legislation concerning workmen's compensation, including tables of indemnities, and other material of a legal nature.

International Labor Conditions

The I. L. O. year book, 1939-40. Geneva, International Labor Office, 1940. 345 pp.

Review of the outstanding events in the fields of industry and labor in 1939 and, to some extent, in the first quarter of 1940. Chapters are devoted to the International Labor Organization; industrial organizations and social movements; economic developments; conditions of work (hours, holidays, industrial hygiene and safety, women's work, protection of children and young persons, labor inspection); social insurance; assistance to mobilized men and war victims; remuneration of labor; employment and unemployment; migration; labor legislation; living conditions; special problems of certain categories of workers (salaried, professional, home, and agricultural workers, native labor, seamen). Statistics of the international trade-union movement are given in an appendix.

Labor Legislation

Labor laws and their administration, 1939: Proceedings of twenty-fifth convention of International Association of Governmental Labor Officials, Tulsa, Okla., September 1939. Washington, U. S. Bureau of Labor Statistics, 1940. 261 pp. (Bull. No. 678.)

Labor and the Sherman Antitrust Act. By David Ziskind. (In Labor Information Bulletin, U. S. Bureau of Labor Statistics, Washington, July 1940, pp. 1-3.)

Recent Canadian labor relations legislation. By H. Fabian Underhill. (In Journal of Political Economy, Chicago, June 1940, pp. 357-373; also reprinted.)

During the last 3 years 7 of the 9 Provinces of Canada, and the Dominion Government, have adopted new legislation in regard to trade unions.

Labor legislation in China. By Augusta Wagner. [Peiping], Yenching University, 1938. 301 pp., bibliography.

History and analysis of protective labor legislation in China down to the beginning of Japanese hostilities, with information on working and living conditions. An appendix contains a summary of the main provisions of the Factory Act and supplementary legislation.

Constitución política y leyes constitutivas de Nicaragua. Managua, [Ministro de la Gobernación y Anexos?], 1939. 176 pp.

Among the rights of salaried and wage-earning employees recognized by the Nicaraguan Constitution of March 22, 1939, are compulsory weekly rest periods, the maximum workday, the minimum wage, workmen's accident compensation, regulation of work of women and minors, maternity leave, medical assistance, higher pay for night work, paid vacations, formation of conciliation tribunals, hygienic housing, and the right to form associations.

Labor Organizations

The American Federation of Teachers. By Irvin R. Kuenzli. (In Labor Information Bulletin, U. S. Bureau of Labor Statistics, Washington, July 1940, pp. 4-6; chart.)

Bureau of Labor Statistics conference with research directors of national and international unions, Washington, D. C., June 27-28, 1940—excerpts from remarks. Washington, U. S. Bureau of Labor Statistics, 1940. 19 pp.; mimeographed.

Migration and Migrants

The mingling of the Canadian and American peoples: Volume I, Historical. By the late Marcus Lee Hansen; completed and prepared for publication by John Bartlett Brebner. New Haven, Yale University Press, 1940. xx, 274 pp., maps.

Ten periods from 1604 to 1938 are considered under the following major headings: The establishment of an Atlantic base; The migration of the Loyalists; The followers of the Loyalists; Pioneers and immigrants; The beginning of the southward migrations; The interlude of the Civil War; Expansion and depression; From the Provinces to the Prairie States; From the States to the Prairie Provinces; War and its aftermaths.

Refugees, 1939. Annual report of National Refugee Service, Inc., New York, 1940. 21 pp., illus.

In 1939 nearly 44,000 immigrants entered the United States under the quotas of countries of refugee emigration. The newcomers, it is estimated, were distributed as follows: professional people, about 12 percent; proprietors and managers, 14 percent; clerks and kindred occupations, 10 percent; skilled and semiskilled workers, 13 percent; women who were not seeking work, together with children too young and men too old to work, more than 50 percent.

Migrant farm labor—the problem and some efforts to meet it. Washington, U. S. Farm Security Administration, 1940. 14 pp.

It is stated that more than a million men, women, and children form the migrant farm-labor group, with family incomes usually ranging between \$200 and \$450 a year. There are discussions of their importance in the Nation's economy, their extremely unsatisfactory living conditions, the areas from which they come, and some of the methods undertaken for meeting their problems. These methods include the establishment of camps, labor homes, and homestead projects, arrangements for medical care, and efforts to halt unnecessary migration.

Preliminary report on development of economic opportunities in Montana for migratory and stranded families. Helena, Montana State Planning Board, 1939. 99 pp., maps (charts).

Occupations and Occupational Surveys

Alphabetical index of occupations and industries, sixteenth census of the United States, 1940. Washington, U. S. Bureau of the Census, 1940. 607 pp.

Aircraft industry. Chicago, National Youth Administration for Illinois, 1940. 53 pp., bibliography, illus.; mimeographed. (Occupational information research report No. 11; revised edition.)

Gives a general survey of the industry, describes types of planes, parts, and materials, and reports on occupations and requirements, training, working conditions, and employment possibilities. An appendix contains a list of airplane and airplane-engine manufacturers.

Jobs in horticulture. By Gilbert W. Wernicke. Chicago, Science Research Associates, 1940. 48 pp., bibliography, illus. (Occupational monograph 15.)

Sketches the history of horticulture, discusses the various kinds of fruits, vegetable and flower growing, and landscape gardening, and gives information on the qualifications, training, employment opportunities, and salaries of horticulturists.

The hospital attendant. Columbus, National Youth Administration for Ohio, 1940. 8 pp., bibliography. (Vocational pamphlet No. 6.)

Office workers. By Picture Fact Associates. New York and London, Harper & Bros., 1940. 55 pp., charts, illus. (Picture fact book.)

Contains data on the early days of office employment, preparation and qualifications for office work at the present time, and the various activities of office workers, their salaries, and possible lines of advancement.

The printing trades and their workers. By Florence E. Clark. Prepared for National Vocational Guidance Association. Scranton, Pa., International Textbook Co., 1939. 154 pp., illus. 2d ed.

In this second edition all material has been rewritten from a new viewpoint.

Radio workers. By Picture Fact Associates. New York and London, Harper & Bros., 1940. 56 pp., charts, illus. (Picture fact book.)

Traces the development of the radio, tells how broadcasting is done, and reports on the various occupations, remuneration, and working conditions in the radio industry.

Secretarial efficiency. By Frances A. Faunce. New York, McGraw-Hill Book Co., Inc., 1939. 601 pp., illus.

The author discusses the varied duties of a secretary and the most efficient methods of carrying out the work.

Old-Age Assistance

Company pension plans and the amended Social Security Act—complete texts and digests. New York, National Industrial Conference Board, Inc., 1940. 51 pp. (Research memorandum No. 4.)

This supplement to recent publications of the Conference Board on company pension programs reproduces the texts of a selected number of pension plans self-administered by the companies or their agents, and of plans which are underwritten and administered by insurance companies. There is a tabular digest of a number of these plans.

Federal old-age and survivors insurance under Title II of Social Security Act, as amended effective January 1, 1940. Washington, U. S. Social Security Board, 1940. 116 pp. (Regulations No. 3.)

Pensions after sixty? By Maxwell S. Stewart. New York, Public Affairs Committee, Inc., 1940. 32 pp., charts. (Public affairs pamphlet No. 46.)

An examination of old-age assistance under the Social Security Act and of the probable advantages and disadvantages under various alternative plans that have been advocated during the past few years.

Personnel and Office Administration

Administrative procedure in Government agencies. Monograph of U. S. Attorney General's Committee on Administrative Procedure. Washington, 1940. In 13 parts; various paging. (Senate Doc. No. 186, 76th Cong., 3d sess.)

The 13 parts of this monograph, each devoted to a separate Federal Government agency, contain information and recommendations submitted to the committee by its investigating staff, and were published to serve as a basis for invited professional and lay criticism and discussion. The committee's findings and recommendations will be given in a report to be published later.

A survey of public personnel legislation and administrative regulations. By Clay Morris Ross. University, Va., Bureau of Public Administration, [1939?]. 143 pp., bibliography; mimeographed.

A primer of time study. By F. W. Shumard. New York, McGraw-Hill Book Co., Inc., 1940. 519 pp., charts, illus.

An elementary presentation of time-measurement procedure as applied to industrial operations, based on the use of the stop watch as a means of establishing time and energy values for the various machine and manual-labor elements incidental to such operations. The volume is designed primarily for use by management but is serviceable to others who may wish to inform themselves regarding the methods used.

Prices and Price Control

Government price policy in the United States during the World War. By Herbert Stein. Williamstown, Mass., Williams College, 1939. 138 pp. (David A. Wells prize essays, No. 8.)

The author's conclusion states that price control succeeded in its aim of reducing prices insofar as this was compatible with the maintenance of production. He expresses the further view that no future war of any comparable magnitude could be fought without the presence of price-control agencies similar to those set up during the World War.

Precios [Argentina]. Buenos Aires, Departamento Nacional del Trabajo, 1940. 89 pp., charts.

Tables and charts showing average prices of articles of prime necessity in Argentina from 1914 to 1939, and prices of certain other commodities at different periods in 1939, and in April 1940.

Prezzi, costo della vita, salari, e occupazione operaia. By Albino Ugge. (In *Rivista Internazionale di Scienze Sociali*, Università Cattolica del Sacro Cuore, Milan, May 1940, pp. 386-407; charts.)

After a study of the course of prices, cost of living, employment, and wages in Italy up to the beginning of the present European war, the author shows the influence of the war upon prices in various countries, with numerous tables of index numbers.

Guaranteed prices in operation [in New Zealand]. By H. Belshaw. Melbourne, Australia, Melbourne University Press, 1939. 15 pp. (Auckland University College reprints, Economic series No. 8.)

Deals with operations under the New Zealand system of guaranteed prices on exports.

Relief Measures and Statistics

The advantages of work relief over direct relief in maintaining morale in St. Paul in 1939. By F. Stuart Chapin and Julius A. Jahn. (In *American Journal of Sociology*, Chicago, July 1940, pp. 13-22.)

It is stated that a program of work projects obviously results in additions to the facilities and services of a community which would not be possible otherwise, and that there is a further advantage, as demonstrated by the survey here summarized, in maintaining and developing the skills, work habits, and morale of the unemployed.

The Illinois Emergency Relief Commission. By Frank Z. Glick. Chicago, University of Chicago Press, 1940. 247 pp. (Social service monograph.)

Traces the history of State emergency relief in Illinois during the great depression and analyzes some of the more significant aspects of such relief.

Applicants for work relief: A study of Massachusetts families under the FERA and WPA. By Elizabeth W. Gilboy. Cambridge, Harvard University Press, 1940. 273 pp.

This volume is concerned primarily with the analysis of one fundamental problem of work relief in a particular social and economic setting—namely, the economic character of persons who became eligible for work relief in Massachusetts. Some attention is given to their chances of reemployment.

Small Loans

Credit problems of families: A study of credit as a phase of family financial planning. Washington, U. S. Office of Education, 1940. 99 pp., charts, illus. (Vocational Division bull. No. 206.)

Although designed especially as a guide for home-economics teachers, this report should also be of interest to the general reader.

Personal finance comes of age. By M. R. Neifeld. New York, Harper & Bros., 1939. 324 pp., charts. 2d ed.

Reviews the legal, social, and business status of the small-loan business in the United States at the present time. Part I deals with social and legislative changes, Part II with the borrowers, and Part III with personal-finance-company operations.

Personal finance companies and their credit practices. By Ralph A. Young and associates. New York, National Bureau of Economic Research, 1940. xix, 166 pp. (Financial research program: Studies in consumer installment financing, No. 1.)

Small loan laws of the United States. By LeBaron R. Foster. Newton, Mass., Pollak Foundation for Economic Research, 1940. 23 pp., bibliography. (Pollak pamphlet 37.)

Social Security

Social security in the United States, 1940. A record of the thirteenth National Conference on Social Security, New York City, March 29 and 30, 1940, together with a census of social security in the United States. New York, American Association for Social Security, 1940. 173 pp.

In addition to papers and discussion on the various aspects of the social-security system—unemployment insurance and old-age and survivors' insurance—features

of the proceedings were discussions of experiments in the housing of the aged and of the problem of health insurance. One section of the volume gives statistics of old-age pensions and of unemployment insurance for 1939, and data on the development of old-age pensions since 1927.

Annual report of Railroad Retirement Board for fiscal year ended June 30, 1939 (with supplementary data, July 1–September 30, 1939). Washington, 1940. 194 pp., charts.

Covers operations under the Railroad Retirement Act to September 30, 1939, and under the Railroad Unemployment Insurance Act from June 26, 1939, to September 30, 1939. Data on railroad retirement benefits during the fiscal year 1938–39 appeared in the December 1939 issue of the Monthly Labor Review. A summary of railroad unemployment-insurance operations during the half yearly period ending December 29, 1939, was given in the March 1940 issue.

Technological Changes and Employment

Employment in relation to technical progress. By Hans Staehle. (In Review of Economic Statistics, Harvard University, Cambridge, Mass., May 1940, pp. 94–100.)

Analysis of 90 British industries, with index numbers for 1935, computed from the 1930 base, of the physical volume of output, the gross value of output, the number of workers, average selling price, and physical volume of output per worker. A study of these indexes leads the author to the view that in Great Britain from 1930 to 1935 the gains of technical progress were transferred largely to consumers through lower prices and to workers through increased employment. The conclusion, however, is qualified by serious questions as to the adequacy of the data.

Man-hours and distribution. By M. King Hubbert. New York, Technocracy, Inc., 1940. 30 pp., charts, illus.

A discussion of technological changes and unemployment from the point of view of technocracy.

Technological unemployment: The social and economic consequences of technology. By Philip Murray. Pittsburgh, Steel Workers Organizing Committee, 1940. 56 pp., charts. (Publication No. 3.)

The author holds that the existence of democratic institutions depends on the solution of the problem of a suitable use of improvements in production facilities to promote social well-being. Technological advances are favored and tentative plans are proposed for securing the participation of labor and consumers in the economic benefits of such changes.

Wages and Hours of Labor

Rates of wages, fluctuation of employment, wage and salary payments in Ohio, 1930 to 1937 inclusive, exclusive of coal mines and quarries. Columbus, Department of Industrial Relations, [1940?]. 939 pp. (Division of Labor Statistics report No. 29.)

An important source for the study of fluctuations in employment and of the range of wages by industry. The report shows the range of weekly earnings separately for three groups, namely, for wage earners, for bookkeepers, stenographers, and office clerks, and for salespeople (not traveling), by industries, from 1930 to 1937. For these three groups, and for the same period, it gives employment by industries and by months. There is also a tabulation of total wage and salary payments, by years, and by industries, for each of the three groups mentioned and for superintendents and managers.

Annual report, wages paid in agricultural occupations, all counties, State of California, year 1939. Los Angeles, U. S. Bureau of Employment Security, Farm Placement Service, 1940. Various paging; mimeographed.

Merchant marine statistics, fiscal year 1939. Washington, U. S. Bureau of Marine Inspection and Navigation, 1940. 143 pp. (Report series, No. 9.)

Includes data on wages of seamen on United States steam and motor cargo vessels of 5,000 gross tons and over from January 1, 1935, to January 1, 1939, by year and occupational classification.

Union wages, hours, and working conditions in printing trades, June 1, 1939. Washington, U. S. Bureau of Labor Statistics, 1940. 69 pp., charts. (Bull. No. 675.)

Changes in wage or hour scales after June 1, 1939, are shown in an appendix.

Parts des profits et des salaires dans l'industrie belge. By Georges DeLeener. Brussels, Comité Central Industriel de Belgique, 1939. 87 pp.

The study deals with the relationship between profits and wages in Belgian industry in the period from 1921 to 1937.

Seventh report from Select Committee on National Expenditure, House of Commons, Parliament, Great Britain. London, 1940. 7 pp.

Includes a discussion of the effects of overtime work on efficiency, and the cost of overtime, in British shipyards.

Collectie arbeidsovereenkomsten in Nederland op 1 Juni 1939. The Hague, Centraal Bureau voor de Statistiek, 1940. 68 pp., chart.

Report on collective wage agreements in the Netherlands as of June 1, 1939, including statistics of number of workers employed in industry, trade, and agriculture, and number covered by the agreements.

Printed in Dutch, with table of contents and table heads also in French, and a French résumé.

Censos agrícola y pecuario, 1937, Estado Táchira [Venezuela]. Caracas, Ministerio de Fomento, Dirección General de Estadística, 1940. 108 pp.

Shows monthly salaries and daily wages, total and average, reported in the census of agriculture and grazing in the State of Táchira, Venezuela, in 1937, by municipalities.

Youth Problems

Handbook for youth. By Merle Colby. New York, Duell, Sloan & Pearce, 1940. 316 pp.

Contains information on employment service, vocational guidance, new occupations, housing, social security, credit, and other subjects of special interest to young persons. Books for youth and organizations serving youth are listed.

This is youth speaking. Record of National Youth Citizenship Institute, Washington, February 9-12, 1940. New York, American Youth Congress, 1940. 31 pp., illus.

A report of the job hunt for unemployed out-of-school youth [in Illinois], October 1 through November 30, 1938. Chicago, National Youth Administration of Illinois, [1939?]. 63 pp.; mimeographed.

As a result of this job campaign, 6,187 placements of youth in private employment were made.

Recent Developments of Labor Unions

The labor movement in the United States has experienced a period of rapid growth and development in recent years. This growth has been the result of a number of factors, including the increasing size of the labor force, the growing awareness of workers' rights, and the increasing power of labor unions. In this article, we will discuss the recent developments of labor unions in the United States, focusing on the areas of collective bargaining, labor law, and labor relations.

One of the most significant developments in the labor movement in recent years has been the increasing power of labor unions. This power has been the result of a number of factors, including the increasing size of the labor force, the growing awareness of workers' rights, and the increasing power of labor unions. In the past, labor unions have been able to negotiate better wages and benefits for their members, and to improve working conditions. This has been the result of the power of labor unions to organize and strike, and to negotiate with employers on behalf of their members.

Another significant development in the labor movement in recent years has been the increasing awareness of workers' rights. This awareness has been the result of a number of factors, including the increasing size of the labor force, the growing awareness of workers' rights, and the increasing power of labor unions. In the past, workers have often been unaware of their rights, and have been unable to organize and strike. This has been the result of the lack of information and the lack of power of labor unions.

The increasing power of labor unions and the increasing awareness of workers' rights have led to a number of significant developments in the labor movement in recent years. These developments include the increasing power of labor unions to negotiate better wages and benefits, the increasing awareness of workers' rights, and the increasing power of labor unions to organize and strike. These developments have led to a number of significant improvements in the lives of workers, and have helped to make the labor movement a more powerful force in the United States.